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VOL. XXIX FEBRUARY, 1930 No. 6

The new book, "Friendly Chats" (price $1) free with every year order for O.M. or O.H.

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Granger's Physical Therapy

In writing his book Dr. Frank B. Granger, realizing the great importance of this subject to the general practitioner as well as to the specialist, has stressed particularly those methods and that technic which lend themselves most readily to application with limited equipment.

Details are given—not merely saying "apply this," but instead exact instructions *how* to prepare for the treatment, *how* to apply it, the length of application, number and frequency of treatments, etc. *Ultraviolet Therapy* receives particular attention.

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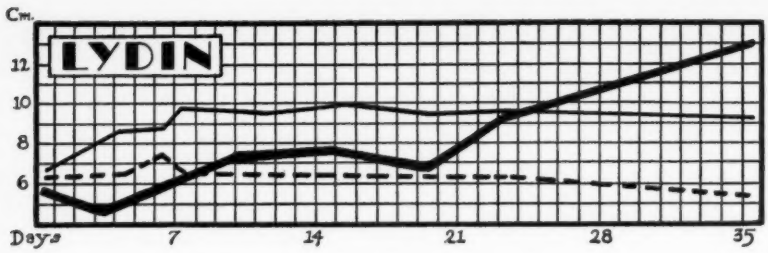

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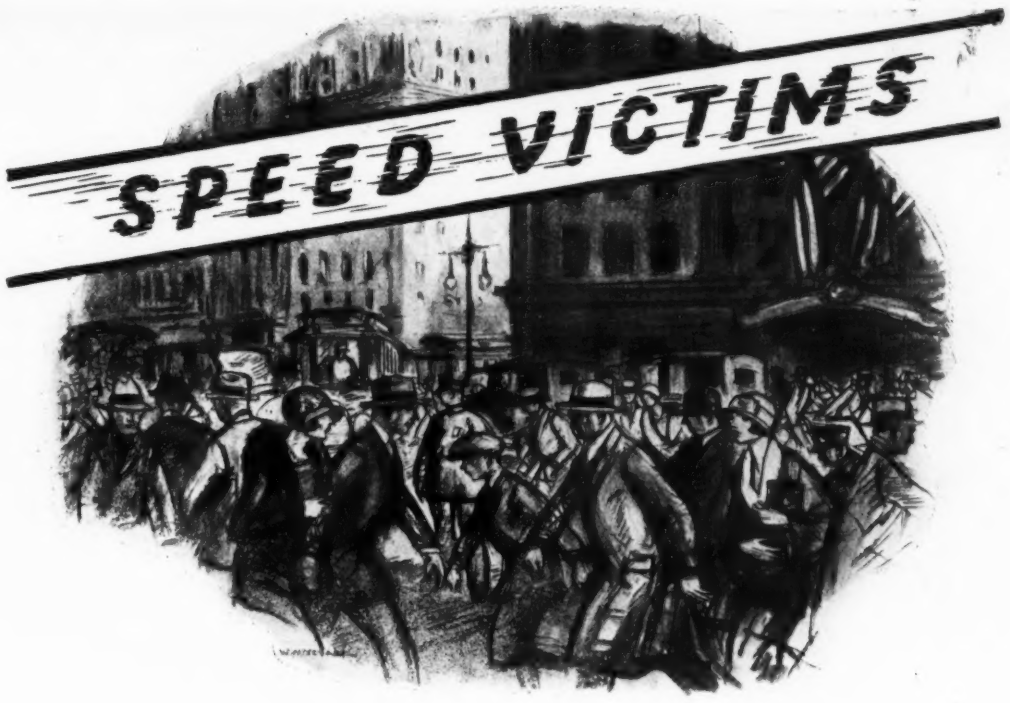

CAUGHT up in the mechanism of a high-speed age and finally tossed into your office, human wrecks for you to mend. These patients are completely out of tune with normal living. You're obliged to treat them as you would children . . . as you would willful children.

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an efficient anti-rachitic agent and a non-habit-forming laxative for expectant and nursing mothers

In keeping with the modern tendency to simplify the dietary of the expectant and nursing mother, physicians now have at their command a simple *food* which does away with two separate prescriptions.

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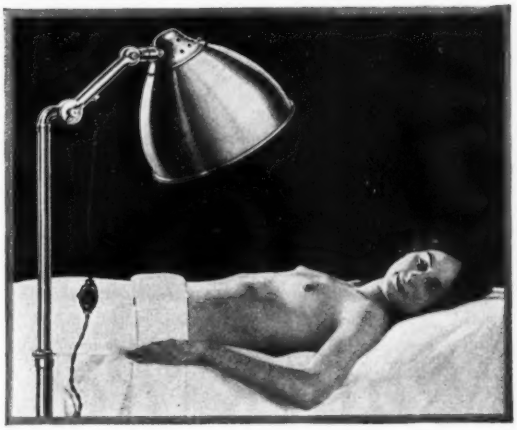

There are eight different models of Britesun Infra-Red lamps of which more than 30,000 are now in use throughout the country.

HEAT has at all times been recognized as the greatest of analgesic agents. Heat induces hyperaemia and accelerates lymph currents. When applied deep within the tissues it exerts a definite stimulative effect on ductless glands and greatly assists the elimination of toxemia, particularly of chronic types.

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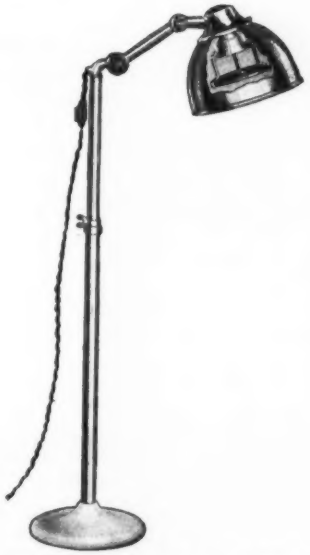

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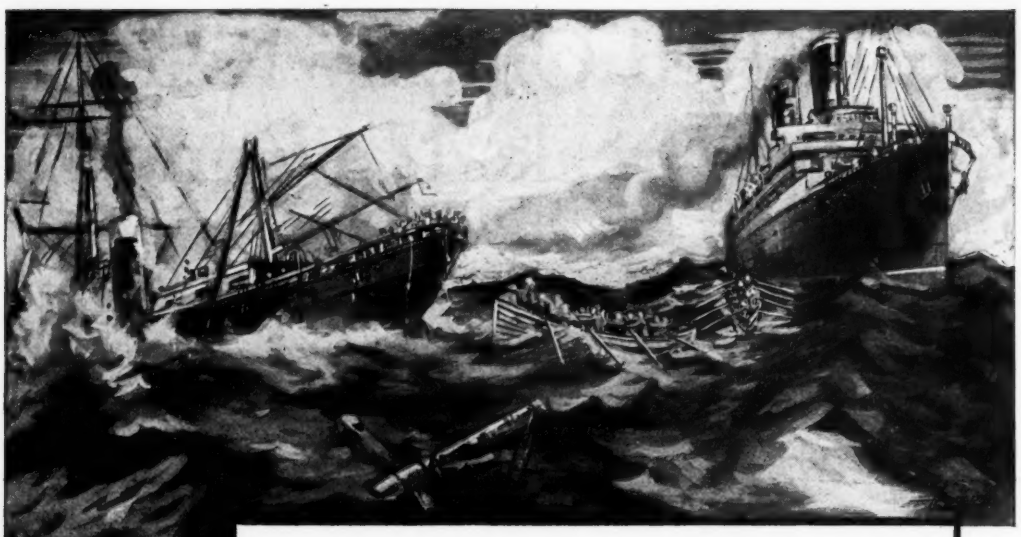

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Weight Reduction Without Acidosis

[Quotations from articles by W. D. Sansum, M. D., Cottage Hospital, Santa Barbara, California]

THERE is a vast public demand today for ways to get rid of excess fat. Quacks and faddists are doing their best to capitalize on it. Here, then, lies an important opportunity for reputable physicians to set people on the right track.

The authority named above has this to say about "reducing"—after exhaustive tests and the study of results in treating many cases:

"Although overweight is well known to be a serious menace to health and longevity, most physicians realize that many persons, especially women, wreck their health in unwise attempts to retain their slender figures. To reduce safely, the diet must adhere to certain fundamental principles.

Starches and Sugars Necessary

"Contrary to popular belief, reducing diets must contain ample starches and sugars. In general, fats cannot burn properly in the body except in the fire of burning sugar. This principle is well illustrated in severe diabetes, in which the sugars are not available because they are passed in the urine. As a result, the fats are improperly burned, producing the often fatal acetone type of acidosis. If an obese person starves, or eliminates the starches and sugars from the diet, the chief source of heat and energy is his own body fat.

"Since sugars are not eaten, this body fat is improperly burned and the patient will inevitably suffer from this dangerous diabetic type of Acidosis.

"Reducing diets should be low in calories so that the balance of the diet may be made of body fat. In addition to a properly balanced, low caloric diet, every patient should be encouraged to take more than the usual amount of physical exercise. Each patient should walk at least five miles per day.

Guard against Acidosis

"The most serious danger from rapid weight reduction is the acetone type of acidosis. This complication is frequently the cause of death from coma in serious and mismanaged cases of diabetes.

"The acetone bodies, which include beta-oxybutric acid, aceto-acetic acid and acetone, result from the improper and incomplete combustion of fat. Sugar, as it burns, seems to act as 'kindlingwood' to the fat which is more difficult of oxidation. It has been aptly said that the fat burns in the fire of the carbohydrates, also, that, in the absence of burning carbohydrates, the fat 'smokes,' the 'smoke' being acetone bodies.

"Every reducing diet must, therefore, contain an adequate amount of sugar and such substances as starch which form sugar in the body."

Liberal use of oranges, orange juice and lemonade in diets of this kind, is recommended, not only for their sugar content, which is valuable in the prevention of the acetone type of acidosis, but also for their potent alkaline reaction in the body. This factor helps to prevent the acid-ash type of acidosis, which is a constant danger in rapid weight reduction.

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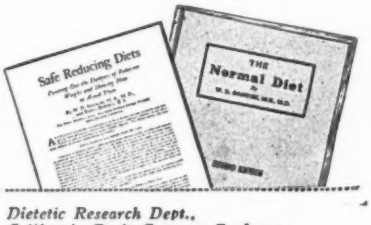
We are able to offer it at only $1.00—a considerable saving over the publisher's price. 10,000 physicians have already sent for it. We believe you will want it too.

Please send the coupon now!



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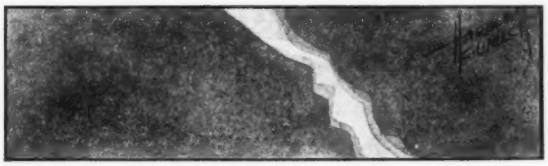

A Natural Aid to the SLUGGISH BOWEL

THERE is a growing tendency among physicians to seek more natural aids in the treatment of constipation than unsatisfactory laxative drugs.

In addition to the careful regulation of diet, provision of adequate bulk and lubrication are conceded to be of prime importance.

It was natural, therefore, for interest to center on the peculiar properties of the seeds of the plant (plantago psyllium) recently made available for use under the name

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The action of Psylla in the intestinal tract is purely mechanical. On coming in contact with moisture, it swells to a jelly-like mass, giving a bland, bulky, lubricated residue in the intestine—a great aid to the treatment of constipation.

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FOR COLON IRRIGATION

Patented September 11, 1926—U. S. Patent No. 1683723
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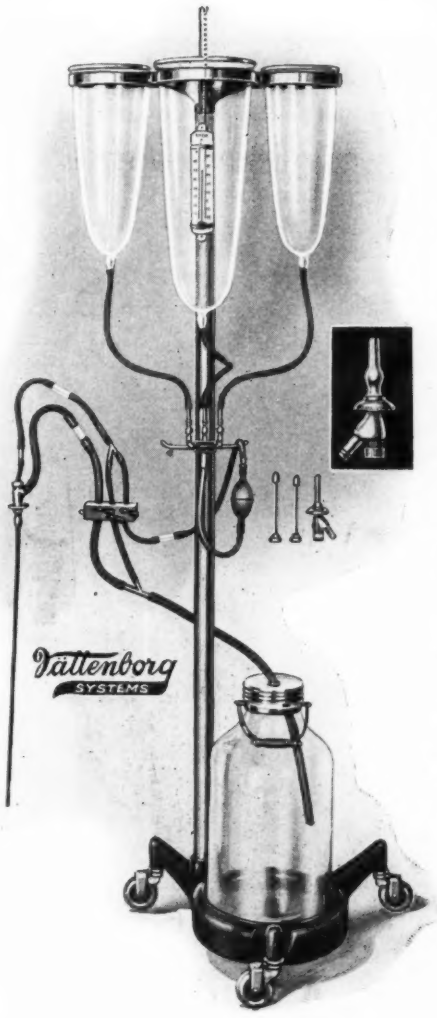

WITH the present-day fast and strenuous mode of living, one is apt to neglect the sewerage tract of the body (the colon). More food than the system can possibly care for is indulged in by irrational and irregular eating. This habit, going on from day to day for many years, breaks down the function of the digestive tract, and, more important, the morale of the colon.

All food that cannot be properly digested and absorbed is passed through the illio-caecal valve, into the ascending colon, and from hereon by the worm-like movement of the unstriated muscles of the ascending transverse and descending colon, to the sigmoid flexure. At this point it accumulates until nature sends an impulse for expulsion or defecation. This is Nature's greatest method of eliminating the waste products and toxins of the body. It would work very nicely if we did not overdo, by our irregular and irrational eating and the present-day fast mode of living. This, and not heeding Nature's impulse for a defecation, causes an atonic condition of the colon, with the resultant constipation.

This atonic condition of the colon allows accumulations to exist along its tract, and is one of the causes of incompetency of the illio-caecal valve, which allows the contents of the caecum to be forced back into the illium, where absorptions of the poisons and toxins readily takes place, which produces many of the diseases known to come from toxemia.

This is one of the greatest evils of the human race. Physicians well know that some of these accumulations remain in the colon for weeks or months at a time.

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is an indispensable aid in the above conditions. Colon irrigations with this unit are not only decidedly effective but can be administered in a simple, clean and accurate manner. The apparatus provides a simultaneous intake and return flow. The intake line, not being utilized for the return flow, is always cleanly. The only parts which require sterilizing being the patented metal anal speculum and the colon tube.

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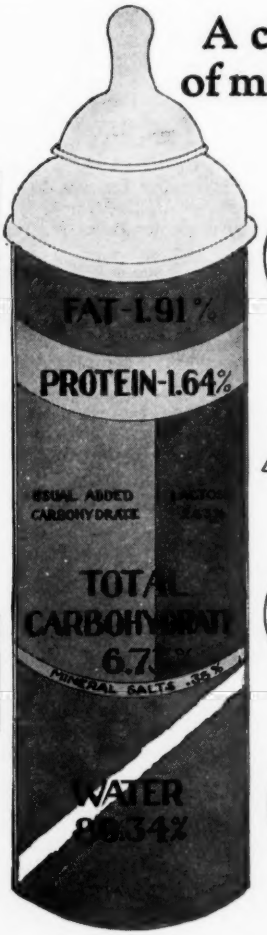

SALTS		VITAMINS	
Calcium	††	A	††
Phosphorus	††	B	†
Iron	†	C	†–
Sodium Iodide	†–	D	†

KEY
†– Questionable supply
† Small supply
†† Good supply
††† Excellent supply

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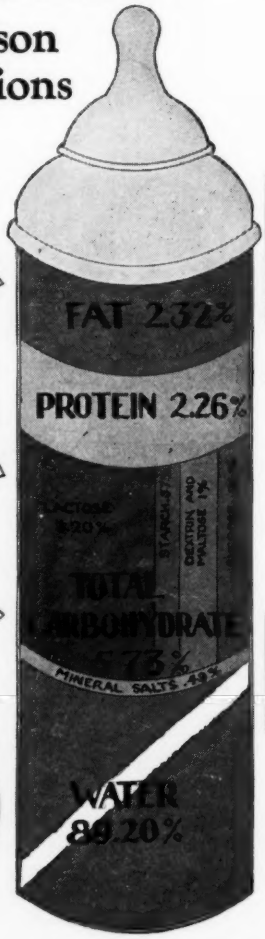
COW'S MILK	20 oz.
WATER	15 oz.
NESTLÉ'S MILK FOOD	6 Tablespoonfuls



SALTS		VITAMINS	
Calcium	†††	A	†††
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The Trained Tactual Sense

CARL P. MCCONNELL, D.O.
Los Angeles

Osteopathic art depends to a marked extent upon the trained tactual sense. This sense reveals a wealth of phenomena literally unknown to those who have not attained a certain degree of skill. Osteopathic diagnosis, prognosis and therapy amount to but little if due consideration is not given to the tactual reaction.

For this reason much time is spent and great care exercised in this part of osteopathic education. Evidently constant practice is the only way to train and discipline the tactual corpuscles. Daily work over a period of at least several months will usually represent a fair start. This means practice, and then more practice, with no holiday periods. There is no substitute.

The guiding, interpreting and checking hand of the instructor is essential in order to sense and interpret the finer shades of both normal and abnormal reactions. Academic teaching up to a certain point is helpful. But, only practical application of the osteopathic art will render the theory a living reality. Mental concept and actual working knowledge should go hand in hand.

The lightest possible pressure is the first requirement, for keen sensitiveness is demanded. Just as soon as one dulls his tactual perception by heavy pressure or rough handling of tissues the mental recording is immediately lost. Dr. Still repeatedly dwelt upon this feature. Nothing to do then but make a fresh start. This is a point which even the trained technician should constantly keep in mind.

Too many practitioners acquire just a modicum of skill, become discouraged and resort to stereotyped routinism. A little daily urge for substantial betterment, greater attention to palpation, will soon crystallize into a habit which will open wide vistas of the osteopahtic concept.

To get en rapport with the patient's condition through the feel of tissue is usually not difficult of accomplishment, provided due attention is given to the reaction of the physical patterns and the mind is not allowed to wander. Concentration, and then more concentration, is required. The physical index or registration is there awaiting recognition and interpretation. The condition is always registered somewhere and in some way. The recording is definite and distinctive. It squares or correlates with history, symptoms and laboratory findings if one knows how to make the interpretation and evaluation. The possible additional information to be hereby obtained is beyond compute. The correction of the abnormal physical registration presents the greatest therapeutic armamentarium, if we know how to employ it. Tactual appreciation is a sine qua non at every step. Observation, analysis, interpretation and systematizing, in order named, are essentials.

Noting simply one section of the body, for example the spine, will not give sufficient information. The body as a whole, a working unit, a complete physiological organism, must be appraised. Of course, this is stating elementary stuff. It is only necessary to remind one that most medical knowledge is really exceedingly elementary. In the various physical patterns we have a medium or plane which is indispensable to, in fact part of, the whole body economy. Are we as a profession making the most of this knowledge? Far from it.

THE SKIN RESPONSE AND TONE OF MUSCLE

The skin response tells a story of its own. Temperature, moisture, dryness, smoothness and roughness portray features the significance of which are not difficult to interpret. Rightly interpreted they not only give direct clues to body condition and physical reaction bearing on diagnosis and prognosis, but unmistakably point to distinct local lesions. Dr. Still constantly referred to skin manifestations as being very helpful diagnostic points. We are not referring especially to the skin lesions as outlined in books on dermatology, but instead to the skin reactions as portraying body conditions to the underlying or nearby osteopathic lesions and the innumerable reflexes. The person skilled in palpation obtains considerable information, positive or negative, in every case.

Then comes tone of muscle, both superficial and deep. Here is a veritable treasure chest of information. The tone of pressure response and of the manipulative reaction, compared with contiguous areas, tell to a reasonable extent the degree of normality. Tonic and atonic effects are no meaningless terms here. The status of tone is in reality an open book to the disciplined tactual sense.

Normal contraction, excessive contraction and contractures are in the categories of three outstanding distinct conditions. The first is self-explanatory, the norm, the criterion by which other states are judged. The second, excessive contraction, bespeaks normal muscle tissue laboring under a degree of excessive or abnormal nerve irritation or stimulus, congestion, toxic state, or tension. But organically it is structurally normal. The third, contracture, means fibrotic involvement which spells chronicity. The knotted and whipcord feel, due to varying degrees of fibrosed hemorrhagic foci, of toxic involvement, of long periods of tension, presents most in-

teresting and instructive pathological suggestions or possibilities to the trained fingers. A classical example is the involved rotatores and multifidi accompanying chronic vertebral lesions of the dorsal area.

Again this is elementary stuff, but how many are making complete use of it? Unquestionably there are osteopathic frontiers here which have not been touched. Fibrosis alone contains a wealth of information. One aspect of it, tension phenomena and resolution of forces, its physics and biophysics, through soft tissue imbalance contains a pathological field of far-reaching effects. Even deranged mechanical balance is no simple phenomenon. Add to this disordered nerve impulse, disturbed nutrition, toxic effects, lowered resistance, lowered natural chemical immunity, the field broadens into almost a limitless world of possibilities. And only the trained tactual sense gives one the underlying clue, diagnostically and therapeutically.

Fibrosis of tendon sheaths, bursa, ligaments, disks, fascia, and of connective tissue surrounding ganglia and nerve fibers and vascular courses are pathological aspects of great importance. Palpation is the one method to completely elicit this information.

Often preceding this remarkable chronic field of fibrosis, the feel of muscles may reveal other aspects. Particularly striking is the impaired muscle imbalance when the two sides of the spinal column are examined. Carrying the examination a little further, note the comparative difference of the intercostal muscles. This imbalance of muscle tone is unquestionably a prolific source of slumped posture, resulting inevitably in definite osseous lesions. And the converse is often true.

Through imbalance, due to faulty habits, lack of exercise, asymmetry, etc., we find the source of no little disorder. The point here is not that we do not know all of this, but rather we do not follow this knowledge through to a logical conclusion in our everyday practice. It would seem that the natural history of the condition should keep us on the right course. But far too often we get sidetracked. Again it is the feel of the tissues which reveals the foundation status of the abnormality. It is the only means whereby one can become thoroughly conversant with its innumerable stages and manifestations. Over a period of time, it presents a veritable panorama of first-hand facts.

EDEMA, FASCIAL EFFECTS AND IMMOBILITY

Localized edema has a history of its own. The condition is readily revealed by the trained touch. It is present to some degree in all lesions. It is marked in the early stages of acute lesions, which may be so noticeable as to lead one in thinking that the osseous malalignment is very grossly changed. Infections, toxins, gland involvement, nerve lesions, anemia are some of the possibilities that arise to the mind when the trained fingers are palpating this condition.

Intimately associated with the muscle involvement are fascial effects, particularly the ones of edema and fibrosis. Either the superficial or deep fascia may be involved. Its effect upon tension is noticeable. The greatest disturbance is probably the fibrotic one surrounding nerve fibers and ganglia.

The fascial tension is distinctive from that of the muscles and the deeper one of the ligaments. All have a condition to reveal in the various aspects which lead to organic change. Time spent in the unravelling of these various factors is far from lost. There is such a thing as focusing too much attention relatively, on the end results of disease and more or less ignoring the condition which leads to disorder. This chapter of the pathological history is exceedingly important.

The resolution of abnormal tension invariably leads to the outstanding feature of osseous lesion indication, namely, immobility. This usually represents a combined effect arising from muscles, tendons, ligaments, fascia, and fairly often the disk when the spine is involved. In the spine, it is the most frequent source of osseous lesions, extensions and flexions combined with a degree of rotation and sidebending. The feel of these lesions and their characteristics are unmistakable to the trained tactual sense. In fact, there is no other way to elicit the information. But emphasis should be placed on the changed character, the pathology, of all component parts of the damaged segment. Herein is the reason why lesions are something far more than merely mechanical changes of otherwise normal tissue. All biological equivalents are changed. This demands exact palpation knowledge.

In immobility there is lack of joint movement plus considerable more. Mobility or movement is the function of a joint, of course. The degree, the response or reaction, and the directions of mobility, whether of spine, pelvis, thoracic cage or foot, presents a wealth of invaluable information which cannot be elicited in any other way than through the feel of tissue. This is the test for degree of mobility. But the essence of it in pathology is the exact character and the direction of the immobility. Here is where in clinical work the tactual sense stands out alone and supreme. Palpation information backed up by the acid test of technic results has placed osteopathic science where it is. Not that there are not many helpful and confirmatory aids to diagnosis aside of this, but rather, the feel of tissue to skilled fingers is in a class by itself. There is no substitute. It is, in a sense, a world apart, for there is no other sense perception to take its place.

Right here it may be well to state for the sake of emphasis that the skilled tactual sense is not circumscribed by the diagnostic field. This very same sense is of necessity carried over to and through the technic field. During every stage of the adjustive operation, it is the feel of tissue, the give, the release, the reaction, which keeps one cognizant of, and in touch with, every step. In no other way can one be sensible of the various reflex patterns, and of even the actual pathology, while adjustment is being made. It is in reality the guide which directs; the medium whereby definite coordination between hand and brain is obtained. Again, it is the light touch, the firm but easy movement, that is the requisite for skill, whether in palpation or technic.

Rigid, forceful movements, or jerky and hesitating ones, of technic do not compare with the continuously free and smooth methods which can be secured when both patient and operator are at ease. To borrow a term, the stance should be right.

This is only good discipline—the basis of good clinical judgment, which in turn is the beginning of therapeutic wisdom.

THE HISTORY OF THE LIGAMENTS

What a striking story the ligaments tell to the tactual sense. The status quo of their tone stands out in no uncertain terms. But the feel must be deep, uninfluenced by muscle tension, in order to sense the condition. Time is required to penetrate the muscle guard. The extra time is well invested. First place the patient in an advantageous position so that conscious tension is reduced to a minimum. Then a little inhibitory relaxing tension by careful stretching of the engaged muscles will release the "guard" of muscle tone so that sensing of the status of the ligaments is not difficult. This is necessary in order to make the differential diagnosis between muscle and ligamentous pathology. It thus gives a direct clue to the therapeutic measure required, whether muscle or ligamentous release, or both, and the necessary direction of adjustment.

Of course, the pathology is frequently complicated. Only a comparatively few cases are directly dependent upon clear-cut trauma. Clinically, one should keep this point constantly in mind. Many cases are complicated by postural strain, or toxin, or arthritic bridges, or senility, etc. But at any rate one knows whether or not he has to contend with a pathology of the ligamentous tissue, which is exceedingly significant. Or perhaps with an anomaly of structure, which is not rare. He also knows if a stereoscopic radiograph would prove invaluable to clear the diagnostic equation.

One is thus enabled to outline a therapeutic measure with exactness, and continually sense the progress of such a measure. As a case progresses frequent check-ups are imperative, owing to the changing conditions, the reversal, historically, of signs and symptoms, and the unmasking of hidden factors. What at the first may be a comparatively minor factor may after a period of treatment assume major proportions insofar as the remaining condition is concerned, possibly changing their relative values, all of which are part of the make-up of the history and complex picture. This is one reason why every treatment, if correctly given, requires that re-examination by palpation should precede the succeeding operation. Very frequently a new combination of anatomical and physiological values arises which is reflected biologically as the healing properties are enhanced or new ones enlisted. The principles of adaptation and compensation are always operative. Potential resources become active as tissue environment is changed. The simplest clinical pictures are complex ones; far more so than we realize. The house cleaning proteolytic ferment alone rapidly changes the pathology, digesting and removing debris, breaking down fibrotic tissue and the like. In a word, creating a different pathology to guide the next operation. Of equal significance are the reparative processes reconstructing the damaged tissue. The tactual sense should be on the alert to note the change. It goes a long way in increasing the effectiveness of treatment. Clinical judgment is quite dependent upon it.

As the inhibited and perverted afferent impulses are released from the abnormal tension effects of ligaments, as well as from tendons, muscles and fascia, and from the impacted or fixed articular surfaces and disks, normality of reflexes is approached, leading to better tissue respiration and greater activity of the antibodies, and consequent clearing of toxic effects. The "ebb and flow of reflexes," as Dr. Becker so graphically states, will be changed. This is most desirable for we are dealing with the nervous mechanism, the master tissue of the body. The tactual sense quickly detects the approach toward normalization. Tone and consistency of the ligament tell the story; which is also directly reflected in the lessened amount of the edema and fibrosis of the lesion, in the greater elasticity of the joint and in the resiliency of the segment.

In a broad and liberal sense, carrying a joint through its normal range of physiological movements is basically sound, when it can be done. It has a certain place in the philosophy of osteopathy. In a number of cases, it is a technic method of merit; those due to the muscle route of soft tissue imbalance, wherein the ligament has not become particularly engaged, and also in the field of acute disorders. Such a method, however, will not, can not, entirely suffice in a fixed rotation of a vertebra, an upward displaced first rib, a primary lesion of the lumbosacral, or a displaced cuneiform, to cite just a few important examples. Leverage specificity here is the only possible method of securing maximum results. And feel of tissue, clear down to ligamentous fibers, is the one key to both diagnosis and therapeusis.

In the great field of personal preventive treatment, keeping the tissues normalized in order to prevent recurrence of lesions, a huge field greatly neglected and potentially productive of far greater efficiency, the feel of tissue is again the guiding factor. It enables one to intelligently instruct the patient in the indicated postures, exercises and habits in order to obtain maximum tone and development of ligament and muscle. It is the tone and consistency, elicited by the feel, which gives one the exact measure of these preventive methods.

THE TYPE OF LESION

Although a number of lesions of the upper and mid-dorsal areas can be readily diagnosed by mere inspection, that is, whether they are of either flexion or extension type, still the exact degree and sequence of rotation and sidebending, the extent of the tension and immobility, and the amount of edema and fibrosis can be obtained only be careful palpation. This also holds true of the secondary lesions.

There are many other dorsal lesions, however, which require painstaking care in exactly and fully determining the character of the malalignment and other pathology. Relatively considerable time is required in eliciting the location of greatest tension, the status of tone and the precise position and degree of the rotated and sidebent vertebra, which are so essential to know in order to apply an effective leverage. Satisfactory results as well as easy and skillful technic are directly dependent on definite diagnosis, and which goes far to make the day's work one of satisfaction and pleasure.

It is interesting to recall the diagnostic skill of Dr. Still. His meticulous search for exact detail of the anatomical condition, his remarkable knowledge of the nerve courses and vascular channels,

and his ability to feel the abnormal tensions and malalignments were an inspiration to the student. No less true was his technic skill. Specificity was an outstanding feature. Underneath all he never lost sight of the biochemical significance. Probably he did his best work in the decade and a half following his sixty-fifth year.

The habit of careful and precise osteopathic diagnosis can be acquired only by constant daily practice. But when once acquired, it sticks, to be followed by ever increasing skill. Too often the habit of carelessness is indulged, resulting in superficialness and taking a chance.

What is true of certain lesions of the dorsal area is not true of other sections of the spine. Nothing short of real downright palpation, intelligently and conscientiously applied, will suffice. One simply has to know to a fair degree the type of lesion and character of pathology present in order to apply any sort of skillful treatment. The sooner this is realized the better for both patient and physician.

To know whether a pelvic distortion is a primary one, or on the other hand it is secondary to a fifth lumbar rotation, makes a vast difference in technic application; often the difference between success and failure. How is one going to tell without a trained sense of touch? It is this training that is fundamental to the applied art of osteopathy.

Right here rests the great problem of osteopathic success and progress. Academically the science aspect is not difficult of understanding. In fact, a major portion of the teaching of all schools pertaining to the biological sciences is in harmony with the osteopathic concept. This is a change that has come about in the past two or three decades. The divergence arises, however, in the actual application of considerable of this knowledge. Osteopathic application is the logical sequence of the academic teaching. If this part is neglected, progress is retarded. During an early period of osteopathic history the art was in advance of the science explanation, for present-day research facilities were unknown. At present the converse is too true; art has not kept pace.

To apply the art beyond a stage of mediocrity demands starting off on the right foot during an early period of the clinical course and keeping at the grind till tactual corpuscles and coordination between hand and brain are fairly trained; till the actual differences in the feel of tissue is made a daily living part of the osteopathic concept. Then and then only, will skill be attained. This begets confidence for results are secured; to be followed by joy and inspiration as the creative work reveals wide vistas in the fields of structural rehabilitation. Lack of this training is why a number neglect what is undoubtedly the greatest therapeutic armamentarium of the healing art. General treatment, willy nilly, may keep the breath of life in anemic osteopathy, but it is only specific structural work that can place the science in the van, where it deserves to be.

Even to have exact knowledge of the type of a lesion is not sufficient. For this palpation knowledge of the diagnostic field is only half-way knowledge when it comes to applied therapy. There still remain to be applied the necessary facts of power and weight, arms and fulcrum in accordance with the entire pathological picture. And here also the feel of the tissue is obligatory. For the problem is not simply one of reversal of physiologic movements. Not just a case of derotation, for example. For pathology modifies the lesion. Thus type and pathology, both, of a lesion must be diagnosed. The nature of the osseous malalignment is only part of the story, and very likely a sort of last chapter in so far as the immediate history of the perverted segment is concerned.

What is the pathology maintaining fixation? This is the big point. It is not necessarily due to traumatic violence. And it is not necessarily due to weight-bearing factors alone. No, very frequently there is something more. And that is the changed values of the entire segment. It is the reaction of all tissues to some stress or strain, and often complicated by toxins. In fact, disease is the reaction due to some injury. The stress and strain of muscle and ligament and fascia, the resolution of these forces, in order to bridge the gaps so as to maintain structural continuity, to sustain a certain amount of functional unity and to adapt the unit to the equilibrium, is the pathological force at the inception and throughout of the so-termed biological reaction of the change in environment. In addition, as an inherent part, the chemism is necessarily involved. Dr. Deason has for years taught and emphasized this viewpoint of the osteopathic concept and its relationship to immunity. In his excellent volume on Physiology he has built up a logical explanation based on the biological sciences, research work and practical experience.

This presents a different problem of technic from some of the academic ones based on a reversal of malaligned normal structure. Of course, we want the reversal. But the problem is not the simple one of readjusting normal tissue or just normal tissue out of alignment. The lesion is an integral part of the deep seated organic involvements; not alone of the nature of structural sprains.

Such instruction is good academic material up to a certain point. The clinical difference comes in the study of pathology. It is the pathology, the reaction, that changes or modifies the lesioned structural; indeed, outside of clear-cut trauma, produces it, affecting visceral integrity through deranged reflexes and disturbed chemism. Thus the important lessons in palpation are clinical ones, after one can sense the normal. Sensing the exact location and character of the tension which causes the immobility, and learning something of its pathogenetic history, are the steps required prior to applying fulcra as different aspects of the clinical problem develop. Quite different from treating the case as though one were dealing with normal tissue, that is, leverages based on the mechanics of normal structure. If such were the case only a modicum of palpation training would be necessary.

SOME DIFFERENTIAL POINTS

How is one going to tell whether a spinal lesion is a primary injury or a visceral reflex? This is obviously important, both diagnostically and therapeutically.

There is a marked difference, although many lesions present both features. When they are com-

bined, it indicates that the primary lesion is an important etiological factor of the organic disorder, which in turn sets up visceral reflex manifestations. Naturally, the diagnostic differentiation gives an invaluable clue to the indicated remedy.

Dr. Burns has listed a number of important differences. Under the lesioned vertebra, or what we term a primary lesion, the "superficial muscles are involved not at all or very slightly." But the deep muscles are involved; tense, rigid, inert and irregular in resistance. We believe this is clinically true, and is palpation evidence that there is a lesioned vertebra underneath. In our experience, it is a reliable indicator of an underlying "fixation" of the articular structures.

There are also two other indicators of the same immobility. First, placing the spine in balanced equilibrium while the patient is sitting, grasping the elbow where it rests against his side and slightly rotating each lumbar and dorsal segment while the fingers of the other hand are palpating. It is not difficult to locate the lesioned vertebra. This is a delicate test for ligamentous mobility. Second, the interspinales of the lumbar will commonly be found atonic over the lesioned vertebra.

These palpation findings are distinct, definite and reliable. Local edema and localized hypersensitiveness are present. The ligaments are involved. It remains to focus attention on the type of lesion and other pathology.

Commonly, there are secondary lesions, either above or below, or both, due to the disturbed mechanical balance. Some of them may be of such a fixed type as to demand special technic attention. But their immobility does not equal that of the primary lesion.

Visceral reflexes present a different picture. "Superficial muscles definitely involved; contraction regular and normal in type; hypersensitiveness not marked and always general in location; ligamentous thickening and edema absent." A marked contrast to the primary findings, but the reflex changes may be, frequently are, imposed on the others for obvious reasons. It may be added that the superficial muscle involvement usually includes several segments.

There should be little difficulty in making the differential diagnosis. Dr. Brigham finds in his surgical work that precise palpation of the visceral reflex findings is an exceedingly helpful feature in diagnosing the locality of organic disease.

In clinical work there is another group of findings which are of practical importance. These are the ones where toxins are present, especially those of the infectious type. There is a distinct atonic, leathery feel of the superficial muscles, often covering a fairly large area. A certain amount of superficial edema is present. One cannot mistake the reaction. It may be superimposed on the other groups of findings. It may mask the reflex ones if these are closely circumscribed. Not infrequently it is associated with the primary lesion group. Probably the primary group, through lowered resistance, predisposes to it. Some of our radiologists are definitely of this opinion. It would account for the localizing of many of the arthritic sites in the injured tissues of the primary lesion.

Keeping in mind that disease is the reaction of the tissues to some type of injury, it is not difficult to realize that the structural plane reacts of necessity in a manner characteristic of its structure and functions. And to tactually discern the actual condition requires no small degree of skill.

The vertebral osseous lesion precisely illustrates just what is meant by reaction of the tissues from the palpation standpoint.

(1) Immobility: Its exact location and character; for examples, whether due to deep muscle fibrosis or to ligamentous thickening;

(2) Tension: The location and direction of greatest tension;

(3) Rotation: The exact location, character and degree of rotation with accompanying sidebending. The greatest factor of all. For maximum recovery possible depends upon the greatest degree of derotation that can be secured.

Nothing short of a disciplined sense of touch, thoroughly versed in the feel of tissues, can either palpate, diagnose or adjust the lesions. There is no royal road. Daily, downright stick-to-it-iveness is the only method.

All of this may be old stuff to some. But it is ever new to the oncoming generation. It is the bedrock of our characteristic art. Although a number may sidestep the bull's eye and entirely rely on old general treatment, which no doubt contains many virtues, even necessities, this alone is far from the ideal to shoot at. Moreover, it is far from scientific initiative, from orderly systematization, and from teaching and research requirements.

THE VENTRAL ASPECT

Chest mobility, abdominal competence and pelvic balance are basic health conditions. Still these three regions as a correlated unit are, in the majority of cases, completely overlooked. Impairment of one section is certain to modify the activity of the other sections. Configuration and function of the body is quickly changed through impairment of soft tissue tone. Posture means much to every one. No less important is the status of diaphragmatic tone and range.

The tactual sense is the one certain means of detecting and measuring the structural condition of the ventral aspect of the body. Of course, it is not the only means of measurement, but it reveals invaluable physiological data which cannot be obtained by any other method.

The degree of chest mobility and tissue tone present indices of underlying organic welfare. The muscle reflex is well known, but how many make full use of it? The lagging of an area is significant. The glandular status is important. Degree of immobility points to possible involvement of the hematopoietic function of rib marrow. It also bears directly upon cardiac functioning, oxygenation, and the physiological activity of the mediastinal glands. Downward displacement of the lower ribs is pathognomonic of an incompetent diaphragm, which in turn is a cause of enteroptosis.

Nothing is more important in upper respiratory disorders than to know whether the lower cervical and upper chest lymphatics are partially blocked where they empty into the thoracic ducts. How is one going to tell short of the feel of the status of the lymph tissues, the tone of the scalenæ and the

position of first ribs and clavicles? Nothing else will suffice.

The application of similar methods to the abdomen is of equal value to that of the thorax. Lack of space prevents anything more than stating the fact. Not that this is not known, but it is practiced by only a minority. History taking, recording subjective symptoms, noting objective signs, and running through of the laboratory reports is not making a complete examination.

The organic relationship and position is not without significance. Still how many obtain the gist of these values? Utterly lost time and again in the pathology of some one organ. The obsession being one hundred per cent. Completely ignoring the why of a certain local pathology. Contingent structural and biochemical mechanisms would seem to be to some an entirely foreign consideration. Equally foreign to them are the invaluable patterns and reactions to be obtained only through disciplined touch corpuscles.

Much can often be done in improving position and relationship, circulation and tone and drainage of biliary system and duodenum, of large bowel and rectum and of pelvic organs, provided due regard is given to underlying pathology, and the method has a semblance of specificity. No doubt many a beginning pathological condition which ultimately finds its way to the surgeon can be corrected if only taken in time and intelligently treated from both the organic and spinal angles. It is the trained tactual sense which directs the way.

If all of our present-day knowledge could be gathered together, sifted, analyzed, systematized and then rationally applied every one would be surprised how much material there really is. No small amount of it is literally lost owing to its being scattered. Back to the basic fundamentals of our applied art will do more to advance our science and school than anything else can possibly accomplish.

TIMING AND SPACING

Osteopathic dosage and its frequency are no idle terms. They are pregnant of the very essence of applied osteopathy. Still one hears very little of it.

Perhaps no greater training of the tactual sense is required than in properly timing and spacing treatments. In a way, it represents the finished product. To know when you have actually accomplished the maximum, or desired, result for the time being demands no little ability and clinical skill. To know when the patient should receive the next treatment requires sound judgment. This can come only through conscientious experience and a sincere sensing of the feel of tissues.

Immeasurable time is wasted in not first outlining a definite structural diagnosis. An indefinite therapeutic program not only wastes time but results are unsatisfactory. Think of a skilled surgeon following such a course. The picture is not overdrawn.

To know when to stop is just as important as to know where to begin. It is the tissue reaction which gives the clue in both instances. This reaction is clear-cut if one is trained to sense it. There is no question of it. The tissues, whether soft or osseous, distinctly and definitely release if the treatment is correct and effective. There is no uncertainty about detecting the response. There is an approach toward a normal tone reaction accompanied by a vascular response which can be actually felt. Thus there is a change in both the nervous and vascular tissues, the master ones. Time period of treatment may have very little to do with it, because it is dependent upon the effectiveness of the adjustive method. When the release is secured, it is the precise time to let the tissues alone and give nature an opportunity to do her work. Additional treatment adds only irritation to the injury. Ask the skilled surgeon if he keeps on working after he has accomplished his purpose. The analogy is absolutely true. In fact, it is not an analogy for osteopathic adjustment is based on the same principles as surgery.

The same principles are applicable in the spacing of treatments. Far better, in many cases, to give one correct treatment in a fortnight than one treatment a day. Nature then really has an opportunity to enlist and utilize her reparative properties instead of having them continually mussed up. No question that spacing of treatments is highly important, calling for a finished degree of clinical skill. Better to treat too little and too infrequently than to overdo it.

The character and degree of tissue response gives the desired information. Sensing the progress of the case is the ultimate summing up of all the factors thereby revealed. They are innumerable for they bear upon pathogenesis, diagnosis, prognosis and therapy. A complete gamut in their particular field. It is this consistency and comprehensiveness, the encompassing of the structural field, which makes osteopathy what it is and thereby demands a thorough training of the fingers.

Timing and spacing of treatments are too often based on fancy of some sort and not on therapeutic requirements. Probably more failures and dissatisfaction in osteopathy arise here than from all other sources combined. If one has a moderate amount of art ability and a conscientious desire to improve it, it would seem that the timing and spacing factors should be uppermost in his mind. Success is dependent upon this as well as upon definite structural corrections. Probably those who have real structural ability do consider these factors. The reparative properties can accomplish but little if not judiciously left alone at the proper time periods. No one can usurp these functions. A little study of biological properties and reactions should quickly give one the right perspective.

Another aspect of the time feature is best exemplified in acute practice. Those who have closely observed Dr. Gaddis in his carefully worked out bedside technic have no doubt noted the advantageous positions, the carefully placed leverages, the gentle but effective procedure, and the very timing of his efforts; all really based on an experienced and skilled tactual sense. Such careful and effective work could not be accomplished in any other way. It does not just happen. Chance plays no role. One should always remember that he is handling edged tools.

INTEGRATION OF METHOD

One of the difficult things for a student to learn is to integrate an adjustive method. This largely depends upon coordination. Explaining the various

steps of an adjustive technic is quite different from putting those steps together in one continuous procedure in actual practice. Position of operative field, feel of tissue, leverages, angles, force applied and coordination all enter into the operation. Awkwardness, uncertainty and excessive force are in the ascendency at first.

Basically, it is the feel and recognition of the various tissues and a knowledge of the pathology which guide technic movements. Every movement should be an integral part of the operation. This means skill and ease. But neither can be attained unless one is in constant palpation contact.

Position of patient establishes leverages, angles and fulcra, the first desideratum in order to penetrate extraneous tension and have the field free for operation. In other words, the field must be in a neutral state if unnecessary expenditure of energy is to be forestalled. The next step is the exact placing of fulcrum in order that precise but gentle release of the soft tissues engaging the lesioned segment may be secured. Here is where the "exaggerate" the lesion feature comes in. This preliminary inhibitory relaxing operation saves a tremendous number of footpounds in the day's work. The succeeding amount of energy required in order to make the actual final adjustment will be reduced to a minimum. No less important, and which interests us here, one does not lose touch of the tissue condition for a moment.

Then the actual adjusting, or whatever amount of adjusting which can be secured during one treatment, will be a real satisfaction. Comparatively little force is required and one is enabled to feel the condition of the tissues, their reaction and "give" or release, during every step of the operation, which is highly desirable. Too much force or rough handling not only dulls the tactual sense but irritates the tissues.

The recognition of a certain timing element or sequence based upon the release of the tensions which have maintained the lesion, and which are disengaged or broken up as the various stages of the readjustment become operative, is a requirement. For example, in order to correct a rotated second dorsal, distinct steps utilizing flexion, rotation and sidebending, properly executed, carefully timed and give of tissues at exact place distinctly felt, is essential.

Without this conscious sensing of tissue tone, tensions and consistency throughout every step of the manipulative and adjustive operation a distinct "break" in the smoothness of the operation is apt to occur. That is, this means that there is a stage or point of the adjustment procedure when one loses tactual perception or sensibleness of just what is taking place. Naturally this lessens skillfulness. Granting that the tactual sense is thoroughly disciplined, this can mean but one thing, a too severe technic method.

It is always well to remember that the lesion is something more than deranged statics of the anatomical. Technic is not a simple method of mechanics to be worked out on normal architecture alone. All the factors, anatomical, physiological and chemical, which go to make up the pathological changes enter into lesion production and maintenance. The lesion is not osseous malalignment alone, nor soft tissue changes, nor nerve tissue and spinal center involvements, nor a rearrangement of chemical values; it is all of these combined. Thus it is seen why the tactful feel is so significant at every step of technic adjustment, and why integration of method means so much.

There are individuals who may acquire a fair degree of tactual ability, but seemingly are unable to meet the mechanical requirements of technic. They have no mechanical ability. Dr. Still recognized this inability, thinking that it probably was inherent. He advised them to give up the study of osteopathy.

A NEW ADVENTURE

One reason why osteopathy is fascinating, even after years of practice, is because each treatment always presents a new adventure, a different feel of tissue, a distinct complex, a new problem. Aside of its satisfactory results, there is always something new; something different from all previous experiences to solve. No such thing is humdrum in meeting a portion of the infinite variety of clinical pictures. Nothing short of a new adventure in each instance.

Individuality of structural picture is just as certain as individuality in mental make-up. A little different ratio of structural forces in one area of the body, a different proportion somewhere else, a new mechanical and organic balance, a variation in tissue feel, combining in a resolution of change never before encountered. A combination calling forth a new application of underlying principles. An index of structural stress and strain which requires special study in its solution. Fulcra must be placed just right in order to meet the special demands.

The mental stimulus of constant initiative keeps one figuratively on tiptoe. Maximum results demand creative effort. Constant vision of the osteopathic concept steps-up originality. This means inspiration if one's soul is in his work. If his soul isn't there the ideal to aim at will certainly be missing.

The healing power of tissue is in abeyance somewhere for some substantial reason. The problem is to find where and why. A keen search via the feel of tissue. Then the big point is whether or not the problem can be solved. Will hereditary forces, congenital defects, developmental conditions, or environmental changes forestall solution?

Initiative, experience, clinical judgment are called upon. Still these are only stepping-stones to the new adventure. A careful tryout here, a little change somewhere else. The adventure is under way.

A series of treatments is not necessarily a simple repetition of the initial effort. As treatment demands unfold, a panorama of changes occur. Perhaps a distinct reversal of the original history. For biologically pathology is the reaction of tissue to change of environment.

No two inheritances are the same. No two changes of enviroment are the same. Neither are any two reactions. Nor two diseases. Each is a distinctive complex or pattern, of the structural as well as of the chemical. Recovery must also follow distinctive lines of registrations.

A certain frame is common ground, that is, common definite requirements of structure and functions. But the minutiae of values are always shuffled a little differently, and this is the basis of

differences, of individual qualities, of the starting point of a new adventure.

No wonder then that palpation and technic are always something new, always. The application cannot be stereotyped only in principle and by the confines of certain physiological functions. The combination of registrations are as infinite in pattern as individuals are different. This presents adventure with a zest, ever new and ever distinctive. But still definite in registration.

The solid confines of structure and function, presenting completeness of plan with intricate complexity, the properties of growth, development and repair, and the principles of adaptation and compensation, all subject to tropism, and, in turn, to readjustment influences, is the highly instructive fact that osteopathy reveals. A wealth of possible recovery conditions verily unlimited if one possesses the key.

The constantly new adventure constitutes finding the key to unlock the body resources. The resources are there awaiting release. Palpation and technic are exceedingly attractive if one only goes about it in the right way, that is, with definite and comprehensive appraisal of values; most stultifying if not.

Dr. Burns recently said that "palpation is probably the most useful method of diagnosis known at the present time. Other methods have great value in certain circumstances, but palpation is universally useful, and its findings are very rarely untrue provided the fingers are skillful and guided by attention."

Manipulative Treatment of the Liver and Associated Structures*

The manipulative procedures and mechanical principles applicable in the treatment of the liver and associated structures are quite manifold. Some of them are fundamentally essential for maximum results by any therapy, especially those detailed hereinafter under *Posture and Related Methods of Influencing Hepatic Function.* The distinctly osteopathic concept, when applied to studious treatment of dysfunction of this organ, is, as usual, very beautiful and pleasingly productive of results.

Perversions of spinal and costal structure, or defective structural movement, can and do influence hepatic activity in many ways. As has been shown in the paper on principles† several important controlling forces are active. These are first, control of hepatic artery and arterioles which are richly supplied by constrictor fibers from the splanchnic division of the sympathetic system; second, the facility of drainage by the hepatic veins which depend in some measure upon the pressure and rate of flow in the inferior vena cava; third, the control or aid to be given the common bile duct. The fourth and last force active in influencing the liver is by way of the quantity and quality of blood reaching this organ through the portal vein and is explained under the heading *Posture.* Manipulative treatment and methods will be considered from the standpoint of these principles in the order named.

1. *Control of Hepatic Artery.*—It has been shown by physiologists[1] that stimulation of the hepatic plexus results in a temporary increase in the rate of flow and quantity of blood going through the liver. Therefore, it seems quite logical that manipulative treatment of short duration and of specific or articulatory nature, if directed to the lower dorsal area, could bring about through the greater splanchnic a temporary flushing of stagnated blood in this organ.

Proof has also been offered[2] that a continued dilatation of the arterioles of the hepatic artery, due to a lack of constrictor action by the splanchnic division of the sympathetic chain, would increase the tension in the intralobular connective tissue and compress the radicals of the portal vein, thereby impeding blood flow along them. This pathologic picture of an obstructed portal circulation could be visualized logically as resulting from chronic intervertebral dysfunction of the lower dorsal area with its corresponding depleted sympathetic activity and resultant hepatic arteriole constriction. Therefore, the logical treatment would be mobilization and normalization of the lower dorsal area, the methods for which are discussed in that part of this article under the heading *Posture and Related Methods of Influencing Hepatic Function.*

2. *Drainage Through Hepatic Veins.*—The efficiency of drainage through the hepatic veins is dependent first upon the pressure and rate of flow of the blood in the inferior vena cava, and second, upon the amount of blood reaching them from the hepatic artery and portal vein. The pressure and rate of flow in the inferior vena cava is dependent upon the heart and to a lesser extent upon thoracic and intra-abdominal pressure. Hence upper dorsal and upper cervical normalization or other indicated methods of cardiac regulation are in order, plus such other methods as will help blood flow in the cava, such as those which will normalize diaphragmatic and abdominal tone. The quantity of blood reaching the hepatic veins through the hepatic artery can be controlled by methods already stated, and the factors regulating portal circulation will be discussed below.

3. *The Common Bile Duct.*—Clinically, upon occasion it is desired to give aid to an obstructed common bile duct. Obstructing mucous clots are thought at times to be sufficient to occlude the duct.[3] Calculus is commonly encountered. The methods of giving aid are debatable. Clinical experience has taught many that continuous pressure applied lateral to the spinous process of the eighth or ninth dorsal segment will often relieve the symptomatology present, especially when applied promptly. Could this occur through a relaxation of the musculature of the sphincter allowing passage to a foreign body? Some anatomists state that stimulation of the greater splanchnic and celiac plexus causes the musculature of the duct to relax, and the sphincter to contract[4]. Would not inhibition of this impulse stream permit sphincter relaxation?

4. *Posture and Related Methods of Influencing Functions. (Quantity and quality of blood in the portal vein.)*—Posture and the osteopathic mechanics related to its acquisition and maintenance are of the utmost importance in treating hepatic dysfunction.

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* Fifth paper in symposium on the diseases of the digestive glands and small intestines: Jour. Am. Osteo. Assn., Jan., 1930,—received too late to be published in its proper place.

† Principles of treatment: Jour. Am. Osteo. Assn., Jan., 1930, p. 209.

The following facts are not generally appreciated and will bear thoughtful study.

The elements of posture most advantageous for normal hepatic action would be a lumbar spine, mobile and in normal lordotic curve, the dorsal normally convex posterior with the ribs carried in a slightly raised inspiratory position. Such a posture would include a mobile thoracic cage, in which the anteroposterior diameter is normal, resulting in normal tension of the anterior abdominal musculature and diaphragm. This is the ideal our treatment should produce.

Hepatic support and the associated mechanics of physiology influence function markedly. The weight of the organ is carried in numerous ways. Notable among these from the standpoint of a possibility for defective mechanics are two: First, any standard anatomy text states that approximation of an organ to the domed diaphragm prevents it from downward displacement unless the diaphragm follows; and second, that the so-called psoas shelf formed by the normally lordotic lumber spine and psoas muscle, combined with the abdominal muscles in front, supports seven-eighths of the weight of the abdominal organs.[5] If these facts be true, then it is essential that treatment include measures to produce a posture as near as possible to the ideal just described.

The position of the abdominal organs is important, and yet they function when displaced. However, the associated mechanics relative to posture is equally if not more important. The alternate thoracic and abdominal, positive and negative pressure in respiration, with the corresponding diaphragmatic action are believed to be of utmost necessity[6]. The influence of this physiologic process upon the quantity of blood flowing through the portal vein and the inferior vena cava is noteworthy. It also influences the quality of blood in the portal vein, as the periodic rise and fall of intra-abdominal pressure is held essential for the function of the intestines. A posture as described in the second paragraph in this division[4] would be suitable for such mechanical physiology, but such is not commonly found in hepatic malfunction. Some or all of the following defects are usually present, treatment for which will be given later.

The flat or posterior lumbar area, and immobile dorsal area are frequently encountered. A fibrosed and rigid thoracic cage, with incurving costal borders is common. Frequently a rib structure in which the anterior ends are depressed and approximated to the spine is met. This lessens the anteroposterior diameter of the chest and upper abdomen, and allows abdominal muscle relaxation as well as a decreased diaphragm attachment area, and permits a sagging pressure upon the liver, with little or no support below. With an immobile thoracic cage and relaxed diaphragm and abdominal musculature, intrathoracic and abdominal pressures are markedly diminished.

Some manipulative methods of treatment for this pathologic picture will now be stated.

Articulatory or specific adjustive methods for intervertebral mobilization of the lower half of the dorsal area are commonly understood. There are many good technical methods, but only one familiar procedure will be here described. This procedure is effective for all lower dorsal segments and the lumbar as well, and while not specific in nature, it tends to give general increased mobility:—

Patient sits astride the table, well back toward the end, with his hands clasped behind the neck and low down to prevent cervical strain. Operator stands behind the patient, his right hand grasping over patient's left wrist, fingers forward and thumb to left. The operator's right forearm is positioned underneath the patient's right axilla and medial to the arm. Now the patient's face and upper trunk are rotated to the right by degrees, side-bending to the right or left as required. By combining varying amounts of forward or backward bending almost any motion of lower dorsal or lumbar may be effected. The thumb, pisiform or thenar eminence of the operator's left hand may be used to localize or reinforce the movement desired.

Perhaps of greater importance, but necessarily following dorsal mobilization, is manipulative treatment of the rib structure. Fibrosis and general rigidity of the lower ribs in a position somewhat posterior and lateral is best overcome by the following method: Place the patient on his left side. Flex the thighs moderately on the trunk and the legs on the thighs. Draw the left arm close to torso and flex elbow with the left hand palm up in front of the face. Place patient's hight hand in the palm of left. Have the dorsal and lumbar areas comparatively straight. Operator stands behind the patient with the tips of thumbs together at the angle of any one of the lower ribs. Thumbs follow the course of the rib exactly and the palms of the hands and the other fingers spread well out over the adjacent thorax. Now by slow general pressure with thumbs, palms and fingers, toward the head, slightly forward and downward, the rib chosen may be sprung away from its neighbor below. After holding for a time the pressure is gently released, to be applied again without changing the position of the hands on the surface. It is most important that the pressure be applied generally by all parts of the hands, and that it shall gently roll the patient slightly forward, with the operator's thumbs slightly accentuating the force upon the rib under treatment. The idea is not to bruise by gouging and is easily mastered. Each rib is treated alternately and the method is very effective in overcoming intercostal fibrotic contracture or costovertebral pathology.

The second manipulative method particularly efficacious in overcoming hepatic malfunction is the treatment of the anterocostal margin to increase the depth of lower chest and upper abdomen. It should be stated here that this should be tempered with judgment and not applied to an emphysematous chest or similar condition.

Place the patient on the left side, thighs and legs only slightly flexed. Operator stands behind the patient and places his right knee with heavy cushion or folded pillow at the angles of the right lower ribs to steady the patient, and to use as a fulcrum in the motion to follow. The operator's right hand is placed palm down upon the right lower ribs with the tips of the fingers curved under and grasping the costal border. Some care is necessary here in order not to cause pain and a relaxed patient is the best preventive. The operator's left hand grasps the patient's right wrist and by slowly raising the patient's extended right arm, up and above the head, traction is placed upon the pectoralis minor muscle. This elevates the upper ribs and the traction is communicated through the intercostal muscles to the lower ribs. Their movement upward and away from the spine is

aided by gentle traction upon the costal border by the operator's right hand. This method is very effective in freeing a fixed or rigid thoracic cage, in elevating the costal margins, and increasing the depth of the lower chest and upper abdomen. It may be used with the patient upon either side.

Many other manipulative methods are valuable in the treatment of the postural defects outlined above. Knowledge of the existence of such defects will readily indicate the methods to use. Methods of exercise, of forced deep respiration and such will not be discussed here. However, it may be pointed out that unless the patient be instructed to make a conscious effort at all times to elevate the anterior chest wall and the sternal ends of the clavicles, much of the corrective work will not be maintained.

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Principles of Osteopathy*

Laboratory Findings

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This report is based on the results of tests made during the years 1902 to 1914 in the laboratories of The Pacific College of Osteopathy, and the years 1914 to 1928 in the laboratories of The A. T. Still Research Institute. At first the studies were made primarily to determine whether the statements made as being the fundamental principles of osteopathy were actually facts. That there is a definite relation between structural maladjustment and functional inefficiency appears at once to be a biological axiom. The susceptibility to bacterial and parasitic invasion manifested by plants and animals which show abnormal structure is everywhere apparent. Any part of a plant which has been so injured as to fail to receive an adequate flow of sap from the parent stem, or an adequate supply of air or of sunlight, becomes immediately much more susceptible to invasion by such enemies as moulds, bacteria, and even such animal parasites as aphides and snails.

Nutrition is disturbed in noteworthy degree by such structural disturbances. Developmental defects of the leaves, flowers and fruits of the affected branches are very common.

Among unicellular plants and animals a similar relationship exists. Any factor which exerts even the most infinitesimal influence upon cell structure affects the vital activities of that cell. Indeed, it is impossible to modify cellular activity in any appreciable degree except by changing its organic or its molecular structure.

Multicellular organisms present greater complexities of structure, since to the intricate structural relations of individual cells, such as occur in unicellular organisms, as well as in the single cells of larger organisms, is added also the complications associated with the relations of cells with cells, and of various organs, themselves of single cells, with one another. In the enormously complicated relations of the cells which make up such large bodies as those of the human race, for example, there is unlimited opportunity for structural disturbances. These structural disturbances of cell-groups cause varying disturbances of function, on the one hand, and of the structures of the cells which make up the affected tissues, on the other.

Throughout the entire domain of living creatures, this osteopathic principle that normal function depends upon normal structure, is found to be true. Laboratory methods are employed in making studies of living creatures, in their structural and their functional relations.

Of greater practical interest is the study of the bony lesion and its effects upon the organism. The place of the bony lesion, which is very frequently but not invariably a vertebral lesion, in the etiology of disease was first recognized by Dr. A. T. Still, and he first recognized the place which the correction of such a lesion has in the treatment of disease. Perhaps there may have been some previous writings or teaching which dimly foreshadow the discoveries of Dr. Still so far as the bony lesion is concerned, but nobody else ever saw the tremendous importance of the correction of structural abnormalities in the treatment of disease, and nobody else ever made such a careful and accurate study of these relations as did Dr. Still. It is the duty and the privilege of every one of us, who follow his science of osteopathy, to carry the study of the bony lesion and of other structural causes of disease to the ultimate end, the determination of every structural relationship which causes malfunction, and the manner in which the abnormal conditions are produced as well as the manner in which the normal functions return after the correction of the lesions. These problems have occupied the most important place in the work of the staff of The A. T. Still Research Institute since its organization in 1906. The laboratory methods employed in these studies include chemical and biochemical methods; the use of the microscope in the study of tissues and cells of the blood and of other body fluids; x-ray plates and fluoroscopic examinations of bones and of the gastro-intestinal tract filled with bismuth or barium salts; instruments of precision for securing tracing of the heart-beat, the pulse and respiratory movements; the sphygmomanometer for measuring accurately variations in blood pressure and the determination of the strength of various hollow viscera from lesioned and normal animals; instruments for examining the retinæ of normal and of lesioned animals and human subjects, and the various methods used in laboratories of psychology and psychiatry for measuring the effects of bony lesions on behavior, emotional states and the speed and the accuracy of mental processes. These latter tests were, of course, possible only when the subjects were human and of at least moderate intelligence.

The nature of the bony lesion has been determined chiefly by animal studies. Animals are subject to accidental lesions and these seem to be produced in much the same manner as accidental lesions are produced in human beings,—that is by strains, habitual posture, falls and various other

*Paper prepared for Kirksville meeting of the A.O.A., Aug. 6, 1928.

accidents. Animals kept for breeding are subject to these lesions as well as animals kept especially for study. Pets also are subject to such lesions, and an osteopathic veterinary would be of great benefit to those persons who find their emotional interests satisfied by their pets. Many interesting case reports have been written in which the chief part was played by the pet of an osteopathic patient.

In the Institute laboratories in Chicago and at Sunny Slope these accidental lesions have provided much interesting and valuable material for study. For the study of any certain lesion, however, experimental lesions are most useful. Several controls are selected and the animals to be lesioned are of the same family, age, and general condition as the controls. In families of two or three rabbits or guinea pigs, one is usually taken for control, the others are lesioned. It is best to have several families in the same group, so that if one control should develop accidental lesions, the controls of the other families, being of the same age and closely related in heredity, may serve as control for the family group thus broken. In a family of four or more, two controls are taken and the others lesioned.

Experimental lesions are produced easily and with no recognizable pain to the animal. The technic employed is that suitable for correcting a lesion of the opposite type; that is, if it is desired to produce a lesion in which the articular process is raised on the right side, with a corresponding depression of the left side, the technic employed is that which would correct a lesion in which the articular process is raised on the left side with a corresponding depression on the right side. Sometimes the force is applied suddenly, producing the lesion at one or two movements, and sometimes a series of gentler manipulations is employed, producing the lesion by a hundred or several hundred manipulations. In either case there is produced a slight change in the relative position of the selected vertebræ. At first there is an increased mobility of the affected articulation, so that by means of the spontaneous activity of the animal the lesion may be corrected easily. This increased mobility is present in the human subject also, and there seems to be no doubt that many accidental lesions are spontaneously corrected during the few minutes or the few hours after it has been produced by the involuntary movements of the affected part of the body, thus causing return to the normal relations before the swelling which tends to perpetuate the lesion occurs. In animals the time required to develop this swelling depends upon the size and the age of the animal. Swellings occur more quickly in young animals and in animals of small size more quickly than in older animals and in those of greater size. That is, the swelling occurs more quickly in a young guinea pig than in an older guinea pig, but more quickly in any guinea pig than in a young kid, and more quickly in a young kid than in a goat. The swelling is always well developed within twenty-four hours, at which time the mobility of the affected articulation is considerably diminished. Limitation of movement increases slowly but constantly as long as the lesion persists.

Microscopic examination of the lesioned articulation and the neighboring tissues, made immediately after lesioning, shows little or no change. There may be a very slight congestion of the affected joint surfaces. If the lesion has been produced by very strenuous manipulations there may be some evidences of trauma. In many accidental lesions there is trauma, and the effects of such trauma should be differentiated from the effects of the lesion itself. Microscopic examination of the affected joint and the neighboring tissues made within a few hours, varying with the age and the size of the animal, show congestion of the joint surfaces, congestion of the small deep spinal muscles, edema, and diminished alkalinity of the tissue juices. After about one day there are a few small petechial hemorrhages in the very small, deep spinal muscles, and there may be some staining of the synovial fluid of the affected joints; there is usually a slight increase in the amount of the synovial fluid within the first day. Examinations made of these tissues during the days, weeks and months after the lesion has been produced show constantly increasing areas of old and recent hemorrhages into the smaller and deeper layers of the spinal muscles, hemorrhages into the fascia near the corresponding spinal segments and into the connective tissue over the spinous processes; these are easily visible after the skin has been removed from the back of the animal after it has been killed. Within six months to a year or two after the lesion has been produced (the time varying with the age and size of the animal) there is some increase in the connective tissues of the smaller, deeper spinal muscles and there is some thickening of the connective tissues around the joints affected. The ligaments and tendons show less marked fibrosis than do the muscles and the looser connective tissues, and the small deep spinal muscles are much more seriously affected, even from the beginning of the lesions, than are the larger and more superficial muscles; the spinal muscles are more seriously affected than are the muscles of the limbs. These facts are due to the structure of the nerve trunks which innervate the muscles. Within six or seven years, in the rabbit, after the lesion has been produced the small deep spinal muscles show areas of fibrosis which are visible to the naked eye, and the mobility of the lesioned area is so marked that it would seem impossible to secure correction of the lesion. Indeed, it is not often possible to secure complete correction after so long a time, which represents more than half a lifetime of the rabbit, but it is always possible to secure some increased mobility and some improvement in the symptoms due to the lesion even after a persistence of the lesion and the symptoms due to the lesion.

The changes of the invertebral disc have also been studied by laboratory methods. At first the disc shows no changes. With the increasing edema of the neighboring tissues there is some swelling of the disc, and this also tends to permit spontaneous correction of the lesion. With still greater swelling of the disc its elasticity is diminished, so that while it may be easy enough to secure correction of the lesion it is equally easy to produce the same, or another, lesion of the same vertebræ. With swelling of the disc the bodies of the vertebræ are slightly separated and the articular surfaces also tend to be very slightly separated. During the next

few hours the pressure of the bodies of the vertebræ and the increasing loss of elasticity of fibers of the disc cause some loss of fluid from the pulpy material in the center of the disc; the disc flattens slightly, the loss of elasticity continues, and the correction of the lesion becomes constantly more difficult. Within a year to three or four years (still the time varies with the age and the size of the animal) the disc has become dry, inelastic, flattened and without any tendency to restore the normal contour to the affected area of the spinal column.

The spinal cord and the sensory and the sympathetic ganglia of the segments affected by vertebral lesions have been studied microscopically. The sympathetic ganglia are concerned in the edema and the diminished alkalinity of the tissues close to the lesion, but the sensory ganglia and the spinal cord itself do not show any such changes. The cells of the sensory ganglia show some fatigue changes, alone. No doubt this relation is due to the fact the sensory ganglia, which lie within the intervertebral foramina and the spinal cord itself are supplied with lymph and blood from an abundant anastomosis. The great spaces of the meninges, the abundant anastomosis of the spinal arteries and veins, and the free drainage of the spinal fluid through so many openings along the spinal canal, all tend to equalize the lymph, the lymph pressure and the blood pressure. But the sympathetic ganglia lie farther anterior and are more firmly inclosed. In the thoracic region they are very firmly enclosed by the parietal pleura, the intercostal structures and the ribs themselves so that local changes in the character of the lymph and in the pressure of the blood and of the lymph cause marked and localized changes, and the nerve cells of the sympathetic ganglia show dissolution of Nissl's substance, swelling of the nuclei with occasional extravasation of nuclei, very often eccentric nuclear locations, occasional vacuolation of the protoplasm of the nerve cell, occasional petechial hemorrhages into the ganglion itself, and, during later years, overgrowth of the connective tissue framework within the ganglion.

The spinal segments and the sensory ganglia of the affected area show merely the symptoms of fatigue; no doubt this is due to sensory impulses initiated by the abnormal conditions of the articular surfaces and the neighboring tissues, especially the muscles of the same area. The articular surfaces of the vertebræ and the small deep spinal muscles are very abundantly supplied with sensory nerve endings. These nerve endings are not concerned with consciousness during normal conditions, but they have the very important function of maintaining the normal tone of the visceral and the spinal muscles. That is, normally the tone of the visceral and many of the skeletal muscles depends upon the maintenance of nerve impulses from the corresponding spinal segments, and these, in turn, depend very largely upon the sensory impulses from the spinal muscles and from the spinal articular surfaces. When there is a lesion, the abnormally related articular surfaces, the hemorrhagic and edematous muscles and other neighboring tissues send abnormal sensory impulses into the spinal cord segments by way of the sensory ganglia. Hence these nerve centers and sensory ganglia are subjected to fatiguing stimuli. With increasing fibrosis there are steadily fewer nerve impulses sent in from the nerve endings partially paralyzed by the persistent pressure so that disuse atrophy results. During the first few years of the lesion the sensory ganglia and the related spinal cord segments show diminished Nissl substance, mild swellings of the nerve cells, and occasionally some slightly eccentric positions of the nuclei in a few cells.

Lesions produced by severe trauma show more marked effects, but these effects are due to the trauma rather than to the lesion itself.

One of the earliest methods employed in the study of the effects of bony lesions was that reported by Drs. R. D. Emery and D. L. Tasker, who secured pulse tracings by means of a sphygmograph. Human subjects were used for these tests, young men who were supposed to be in perfect health. After securing normal pulse tracings, pressure was exerted upon the vagus nerves, such pressure as might be expected to occur as a result of a lesion of the first ribs with associated contraction of the scaleni and other cervical muscle groups. Another sphygmograph was then taken and the change in the pulse wave due to the pressure on the vagus was shown very clearly. Changes in the pulse rate due to lesions of the upper thoracic vertebræ, rib lesions, and lesions of the lower thoracic vertebræ were reported at a later date. Sphygmographs illustrating some of these changes were published in "Basic Principles."

By means of a sphygomomanometer the changes in blood pressure due to various vertebral lesions were studied and records secured giving definite results in terms of millimeters of mercury as a measure of blood pressure. These experiments also were performed upon human subjects at first. Normal young men and women were used for the tests, and the blood pressure was determined for the subject at rest, under normal conditions. The lesion was then produced, or was imitated by means of pressure upon the tissues in the immediate vicinity of the selected vertebra. Both methods gave identical findings. The following conclusions were determined as a result of fifty experiments, not less than five tests being made upon different subjects for each vertebra selected:—

Lesion of the fourth thoracic vertebra causes slower and weaker pulse rate, the rate diminishing eight to fifteen beats per minute, with an average decrease of ten beats per minute; the arterial blood pressure diminishes from ten to eighteen millimeters of mercury, as estimated by a mercury manometer with cuff filled with air; and the average decrease is nine millimeters of mercury. These reactions occur within three minutes after the lesion has been produced, or after the pressure upon tissues adjacent to the selected vertebra has been applied, and the reactions persist for ten minutes or more, ceasing only with the relief of the pressure or the correction of the lesion. The reactions vary during the existence of the lesion or the pressure, but such variations are slight and seem to be due to reflexes initiated by the abnormal circulatory phenomena. These phenomena are apparently due to the effects of lesion upon the spinal cardiac center.

Lesions of the eighth to the eleventh thoracic vertebræ are followed within two or three minutes by diminishing blood pressure, increased rate and

strength of heart beat and increasing respiratory rate. These phenomena are apparently due to the effects of the lesion upon the vasomotor centers of the splanchnic region, dilating the blood vessels.

Other lesions cause less marked variation in the blood pressure and the heart rate, according to the area of the vasomotor field affected.

Experiments were made upon anesthetized animals. Lesions of the eighth to the eleventh thoracic vertebræ are followed within two or three minutes by diminishing blood pressure, increased rate and strength of heart beat and increasing respiratory rate. These phenomena are apparently due to the effects of the lesion upon the vasomotor centers of the splanchnic region.

Other lesions cause less marked variations in the blood pressure and the heart rate, according to the area of the vasomotor field affected.

Experiments were made upon anesthetized animals. Lesions of the fourth thoracic vertebra caused diminished rate and diminished force of the heart's beat, and lowered arterial blood pressure. No adequate instruments were at hand for measuring the changes in the pressure of the animal's circulation. The average decrease in the pulse rate was 8 per cent of the normal pulse rate for the animal used for the tests.

That these reactions were due to the effects produced upon the spinal cardiac center was indicated by the fact that the same reactions occurred after secretion of the vagus nerves above their connection with the sympathetic ganglia; they occurred in the same manner after destruction of the medulla, which destruction involved necessarily the vagus and the related centers; and they also occurred in the same manner after destruction of the spinal cord below the seventh thoracic segment and above the first thoracic segment. The reactions occurred in less marked degree after injury of the spinal cord at the fifth or sixth spinal segments, and at the first and second segments. The reactions did not occur at all after destruction or injury of the cord at the third, fourth or fifth thoracic segments, or after section of the sympathetic cord anywhere between the fifth thoracic ganglia of the sympathetic and the middle cervical ganglion. Injury or destruction to the upper cervical ganglion usually prevented the reactions; it seems that there is some individual variation in the structural relations of the upper cervical sympathetic ganglion and the connection with the vagus.

The later effects of the fourth thoracic lesion upon the action of the heart were also studied. The heart of the animal which has had a fourth thoracic lesion for six months or more presents certain invariable peculiarities:

The muscle fibers show less definite striations, there is a moderate increase in the number of nuclei of the muscle fibers and of the connective tissue fibers, and there are minute petechial hemorrhages in the heart muscle, most marked in the wall of the left ventricle. The walls of the auricles do not show any of these hemorrhages in the animals examined; the wall of the right ventricle shows occasional such hemorrhages. There are also areas in which a brownish stain is present, and these indicate the areas involved in older hemorrhages. Partially digested red cells are also present, and these are the site of more recent hemorrhages.

The walls of the heart show diminished strength, diminished elasticity and increased extensibility. These effects were determined by means of weights. Strips of muscle from a certain area of the heart of the control animal were taken, and the weights necessary to stretch the muscle to a given extent, and break the muscles, were determined by experiment. The amount of retraction of the stretched muscle was noted, and also the amount of contraction of the muscle fragments after the muscle had been broken by the application of considerable weights was noted. The animal which had been lesioned six months or more before the experiment, and which was, except for the lesion, of the same family, age, heredity and living conditions as the control animal, was then killed in the same manner, a strip of the same size was taken from the same area of the heart, and was subjected to the same tests as were given to the heart of the control animal. In every such experiment the heart from the lesioned animal showed twice or thrice the extensibility, one-third to one-fourth the elasticity, and two-thirds to three-fourths the strength of the heart from the normal animal.

The effects produced upon the nutrition of the animal by the lesion of the fourth thoracic vertebra are also of interest. In young animals there is little or no effect noted in the weight of the animal, but lesioned animals increase in weight about as rapidly as do the controls. The lesioned animals vary more from day to day, however. Normal animals do not gain steadily, but they remain at a given weight for several days, sometimes for a week or more, and then they increase very rapidly for a few days; they stay at about the same weight for a few days more, and then gain again. Normal animals rarely lose any weight, however, or at most they lose only a few grams and this is soon regained. But the lesioned animals often lose fifty grams, and then regain this loss very suddenly. The normal weight curve, in other words, is a series of step-like increases, and these are fairly regular. The lesioned animals showed weight curves which are irregular and often drop considerably, to be followed by sudden and unexpected increases. During the three months' or the six months' or the year's periods, however, the weight increase of the young lesioned animals was about the same as the weight increase of the young controls. After adult life, the lesioned animals increased steadily while the normal animals remained at about a constant weight. That this increase was due to an accumulation of water in the tissues of the lesioned animal was proved by an interesting group of experiments.

After killing a control animal and examining the body, the cavities are not found to contain any recognizable fluid. The joint cavities, the peritoneal and pleural cavities and the other small serous spaces are found to be merely moist, but there is no accumulation of fluid. After killing an animal which has had a fourth thoracic lesion for six months or more, and which is otherwise identical with the control in family, age, heredity and living conditions, every cavity is found to contain considerable amounts of fluid. From one to ten cubic centimeters of fluid may be found in the peritoneal cav-

ity, from one to four in the pleural cavity, usually about one cubic centimeter is found in the pericardial sac, and other serous cavities contain usually a few drops of fluid.

When the carcasses of the normal animal and of the lesioned animal are dried under identical conditions, the lesioned animal's carcass loses about ten per cent more than does the carcass of the normal animal, which shows that the muscles, and possibly the bones, of the lesioned animal contained a much greater amount of water than did the same tissues of the normal animal. In other words, the lesioned animal suffered from a general edema of cardiac origin.

Clinic patients were studied in connection with lesions of the third, fourth and fifth thoracic vertebræ. The fifth thoracic lesion caused less marked effects upon the heart than did the third, and the third caused less marked effects upon the heart than did the fourth, taking into consideration the results of the study of one hundred cases in which the lesions were considered to be responsible for causing or perpetuating the cardiac malfunction. No cases of actual valvular lesion were included in this series of cases, but only those cases which would ordinarily be considered functional, or nervous, hearts. (It was almost always found that these patients had lesions of the fourth or neighboring vertebræ, usually with an associated rib lesion. Only very rarely was some other cause of the nervous heart recognizable, and these were usually associated with some serious and definite neurosis involving many other tissues.)

Sphygmograms were taken for selected cases of these patients, then the lesions were corrected and the sphygmograms taken again. In every case in which the lesion was corrected the sphygmogram showed either return to normal or a definite improvement. The blood pressure was taken for several of the patients, and the arterial pressure was always below normal except in those patients who were also subject to arteriosclerosis. After the correction of the lesion the subnormal blood pressures were increased, while those patients who had arteriosclerosis usually showed either no elevation or a slight decrease in blood pressure.

Several cases of obesity were included in this list. In every case the correction of the lesion resulted in some loss of weight, and usually this was associated with a more pronounced loss in circumference. This result could have been noted only if the loss of weight was chiefly due to a loss of water from the body. Several of these patients reported a marked increase in the amount of urine excreted after the correction of the lesion. No cases of recognizable nephropathy were included in this series, however.

In the psychiatry clinic it was noticed that those patients with a melancholia of mild degree who did not suffer from arteriosclerosis usually had lesions which might cause lowered arterial pressure. Several of these patients were given corrective technic applied in such a manner as to raise the blood pressure temporarily—that is, the corrective manipulations were given briskly and corrections made rather suddenly. (These methods have been found by experiment to increase arterial pressure and they are not to be used in cases of high blood pressure.) Patients with mild degrees of melancholia showed much more improvement immediately after treatment by these methods, and when, as a result of the correction of the lesions and such other treatment as seemed indicated, the arterial blood pressure returned to a normal figure, the melancholia usually was relieved. (Other cases usually required dietetic directions, the cleansing of the gastro-intestinal tract, and other hygienic improvements.)

In order to determine whether the change in the blood pressure might be an important factor in the improvement other tests were made, using normal young men and women. It had been found that pressure upon the tissues adjacent to any selected vertebra produced immediate reactions identical with those produced by an artificial lesion or an actual lesion. Such pressure is much less dangerous than producing a lesion in human subjects, and was employed in the group of experiments now to be described.

The aim of this group of tests was to determine whether or not lowered blood pressure caused any change in the speed of mental activities or in the emotional coloring of mental states. The most satisfactory method, decided upon after many preliminary tests, was this:—

The subject sat at ease in a quiet room. A list of words of common use was prepared. Each word was spoken and the subject then gave the first word which came into his thought; the next word on the list was spoken, and the subject gave the word which this brought to his mind, and so on. The time required for the person giving the words to read the list aloud was measured, and the time required for the subject to answer the entire list was measured. The time required for the subject to give the simplest possible mental reaction was the difference between the entire time required for the test and the time required for the original list to be read aloud. Normal persons require an average of .9 seconds for each reaction of this type. Some normal persons require 1.1 second, and a few could give the words at an average rate of .7 second, but most people have a reaction fairly close to .9 second for words of the types placed on these lists.

After two or three lists of 100 words each had been used for a subject he was allowed to rest for half an hour or so, engaged in other activities. He was then subjected to the pressure which imitates a lesion of the tenth or the ninth thoracic vertebra. His blood pressure was lowered about fifteen millimeters of mercury by this pressure. Another list of words was then given him, under the same conditions, and his reaction time determined in the same manner. The words were of the same general nature and were also words in common usage, but no word was used in any two lists given.

Julian Huxley, in his little "Essays of a Biologist," says:

"The moulding of matter by spirit is under one aspect Science; under another Art; under still another Religion. Let us be careful not to let the moulding forces counteract each other when they might co-operate."

Every cause calls for leaders, but these leaders must be thinkers, scientific reasoners who work to correlate and co-operate rather than counteract. That's what thinking leaders are for.

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THE TECHNIC PROBLEM

Confronting practical everyday osteopathy is the technic problem. By this we mean the acquiring on the part of the practitioner of a technic method which contains the elements of efficiency, skillfulness and attractiveness.

A method that fairly satisfies both the practitioner and the patient is no small attainment. Skilled efficiency and ease on the part of the physician is a desideratum if he hopes to stand up to the work for a period of years. This is of equal importance to his clientele.

Dr. Still did not make his work laborious. Ease, skillfulness, effectiveness were the outstanding features, whether the patient was reclining, sitting or standing. A thorough comprehension of body mechanics, based on an intimate knowledge of living anatomy, was unquestionably to him an absolute requisite. Those who came in personal contact with him over a period of years well know what an intimate acquaintance he had with anatomical facts. No less so was his knowledge of physiology and chemism. In his daily work there was no cut-and-dried method in the least savoring of manipulative routinism, the very thing that stultifies so much of the work of his followers. In every instance the patient before him was a distinct challenge to find out where and how the patient differed from the normal. He sought to locate the primary etiological factor, study its characteristics and then apply a technic in accordance with the finding. This immediately and automatically resolved the problem into an individual one, a distinct operation, with no semblance of a stereotyped pattern.

As we write this we have before us one of his well-thumbed anatomy texts. We turn to a few of his book marks, which have remained undisturbed. The thoracic vertebræ, the inferior turbinate, the tendons of the hand, abnormal muscles, the inferior mesenteric artery and vein, the eyelids, the pulmonary artery, the pancreas are some of the sections that were especially interesting to him at a particular time. We cite this for a special reason. In the first place he was an exceedingly close student. Every portion of the body was of equal importance to his viewpoint of body completeness, reparative properties and structural order. Where and how to nourish tissues, control function, and eliminate waste were the ever important questions. Only by an intimate knowledge of anatomy, physiology and chemistry could these be answered.

Technic itself is a relatively simple matter if we have sufficient data to base it on. Manipulative adjustment is a means to restore order. If we have insufficient data we are handicapped at the start. This is too true with considerable of our work. Too often the necessary time is not given to studying the clinical picture before us. Result: ill conceived, haphazard technic, or a degenerated type of routinism. Dr. Still called routinism "engine wiping," on a par with the work of the roundhouse engine wiper. Hence arose the dictum of "find it, fix it and leave it alone." The find it and fix it parts was a criticism of the anatomical wiper; the leave alone portion referred to those who were doing more or less meritorious work but did not know enough to leave the patient alone after they had found and fixed the lesion. Nature was not being given a chance to do her part.

The foregoing shows that Dr. Still had some difficulty in teaching technic. Even under his masterly instruction the student was apt at times to relapse into routinism. Fumbling the anatomy means that the tactual sense has not become experienced in detecting the various degrees of tone, resistance, elasticity and resiliency of the tissues. The educated tactual sense reveals a vast new world of phenomena, which when organized in a systematic way supplies a wealth of data bearing directly upon structure and function.

Even when this is elicited the art of application is only barely under way. The mechanics of adjustment has to be thought out. Right here is where the most severe test of practical osteopathy arises. For it is not merely a simple problem of academic mechanics: it is most emphatically a problem of academic or normal structural mechanics modified by pathological involvement. This is why many practitioners fail to secure the best possible results—they neglect the study of osteopathic pathology.

Then there is another associated reason why the anatomy may be fumbled. Skillful technic means co-ordination between brain and hand. If this is lacking, awkwardness and unnecessary force result.

All of which means there is only one way to meet the technic problem: and that is by personal instruction. Dr. Still put this method into effect at an early day. It is an art that can't be successfully taught from the lecture platform. We have long been convinced that the only way to teach it is on the actual patient with the student's fingers underneath those of the instructor's. And present experience more than ever confirms the method.

In this way, and this way only, can the instructor actually convey to the student the various comparative reactions of tissue tone, the contrasting features of the normal and the abnormal, the distinct feel of fibrous involvement, of edema, of reflex contractions, of infectious phenomena and of the score of possible pathologic conditions that are associated

with and part of the osteopathic lesion and its dependent effects. The various tissue changes must be felt time and again before they stand out as vivid features and confidence is attained.

The fine shades of the feel of tissues as expressed through their tone, resistance, alignment and various manifestations of structure comprise a wealth of data, etiologic, pathologic, diagnostic, prognostic and therapeutic, that can't be otherwise obtained.

Thus, to repeat, there is only one way to master osteopathic palpation and technic: individual instruction of the student's fingers underneath the guiding hand of the instructor's, continually contrasting the normal with the abnormal and sensing the various structural patterns as expressed on the living body. This is tactual education.

Not alone the muscle reaction. But also noting surface temperature, the skin reaction, the fascial responses, the ligamentous tone, the tendon freedom, the glandular condition, the intervertebral disk resiliency, the segmental tension, which are all intimately associated, part and parcel, with the character of joint apposition and alignment.

Many lesion changes, both primary and secondary, are initiated through muscle imbalance. They have far-reaching effects. As a consequence the body condition as a whole should be thoroughly appraised. Not alone the spine, pelvis and chest. But also the entire ventral aspect of the body, the limbs, the poise, posture and gait. For contingent mechanisms are always conditioned. Cause and effect present an intimate complex structural pattern or registration. The structural indices are as certainly recorded as the chemical, functional and subjective. Only trained tactual skill can note them.

One of the greatest difficulties in structural diagnosis is the exact recording of the sequential changes. By this we mean what is primary involvement, from the pathogenetic standpoint, what is secondary, compensatory, adaptive, what portion is of a reflex type, what represents a toxic or infectious character. All of these phenomena have their characteristics, though many of them are complexly associated.

Such information should be elicited with a minimum of effort. For only in this way can a sufficiently deep penetration be made which does not dull the tactual sense. When the mental recording loses contact with the tactual corpuscles through too strong finger pressure one is hopelessly lost. The common mistake here is attempting to elicit the required information by too forceful and direct pressure over the field. Instead, advantage should be taken of the leverages that will move or sense the parts with a minimum of effort. First placing the patient in an advantageous position so that the region under examination can be readily penetrated and tactually sensed.

It is the degrees of tone reaction and the character and direction of tension that reveal an important part of the condition. These give direct clues to locality of edema, to degree of fibrous involvement, to nature of malapposition and malalignment. Herein are the physiological and anatomical bridges which lead one to the indicated technic. And by their response and release one also senses an exceedingly important part of technic, the time element of manipulative work and the spacing of treatments. In other words, when to stop adjustment efforts and to leave it alone for a sufficient period so that the proteolytic ferments and reparative properties may do their required work without outside interruption. Clinical sense and judgment can come only through actual repeated sensing and experiencing these vital changes. Again we emphasize that only by an understanding of osteopathic pathology can one clearly sense the response. For clinical technic is far more than an academic technic to be illustrated on normal structure. It is all right for an elemental understanding of mechanics, but in clinical work the story is far different; for normal structural academics is modified in every case by pathological involvement.

Angles, leverages and tensions in various combinations, these tell the story of an easy and efficient technic. Fitting the technic to the patient is far different from fitting the patient to some stereotyped technic method. The latter feature is why so many technic efforts prove severe to the patient, back-breaking to the operator and ofttimes futile of desired results. The key to an easy technic is patterned after the key to an easy palpation—that is, advantageous, easy and light leverages which clearly sense the direction and character of abnormal tensions. This bears directly upon the type or character of the osseous maladjustment, which is simply a part of the segmental lesion.

The point or direction of greatest fixed tension (determined when the field of operation is absolutely under control of the operator so that the patient is not, through either unconscious maintenance of equilibrium or consciously protecting the part, tensing the tissues) of the interosseous tissues is the one big factor to diagnose. This is also the direct clue to an effective and easy technic, no matter what combination of leverage technic one employs. There may be innumerable ways to apply the same principle. But in all instances the fulcrum should be exactly placed in order to obtain maximum effect with minimum effort. The point and direction of greatest fixed tension is the area for attack. The variation of a small fraction of an inch in placing the fulcrum makes a vast difference for both operator and patient.

We believe that the old principle of "exaggerate the lesion" is still one of the most effective methods of technic adjustment. It combines the necessity of determining the exact locality of structural disorder, the character of the pathology, and preliminary loosening of the fixation prior to actual adjustment efforts. If this is first accomplished any one of several technic methods will prove effective.

Two or three decades ago the art of osteopathy was distinctly in advance of its scientific explanation. The practitioner boldly and fervently went to work and did the "impossible." Result was that "incurables" were restored to health. Today we know far more of the science field, as well as of the art application, and are in the enviable position of seeing all medical systems gradually approaching the principles of the osteopathic concept. One result is notable. As various hygienic and physiotherapy measures are perfected there seems to be a slowing up of the pace of structural adjustment research on the part of the clinician. This is giving not only a false picture of the proportional values of therapy, but results can't be commensurate if indicated adjustment is neglected, and our very substantial characteristic is endangered. By the very nature of the biological values of anatomy and physiology structural order must always remain a major consideration.

C. P. McCONNELL.

SIXTH EDITORIAL CASE REPORT

I must again ask the reader's indulgence for the use of the pronoun "I."

In preparing these editorial case reports I have felt some diffidence at times because of seeming to assume the attitude of instructor to my colleagues. I am giving up that notion because the procedures described in every one of these cases are of the simplest possible kind. They are as effective in the hands of those who feel they are not good technicians as in the hands of those who have no such modest feeling about their work.

I meet many osteopathic doctors who feel that the experts of more than ordinary repute in our work have some wonderful ability which they do not hope to attain.

While it is true that many of our people are particularly apt and remarkably successful in making difficult adjustments, the rank and file should take courage from the fact that some of the very best work done is done by the simplest procedure; and that the success of some of our notable experts is due to dependence on the most ordinary technic. It is the when, the where, and the why that count. We have all had our chance at the academic part of our work. We may all raise our academic level by practice and study. Technic is part of our academic training, and we are all potential experts in technic, with some having a greater "potential" than others. This is so in every line of endeavor.

If you face a serious case with a carefully considered major plan, and begin observation and record of the data especially associated with the disease you are treating, you will find that haphazard general effort fades from your work and specific treatment for definite objects becomes your habit.

If definite objectives become your habit, you will find you are a pretty good technician, even if you are modest. You will probably do the proper thing as to force, amount and frequency of treatment, and you will be on the watch to vary your treatment on indication. There will be no need to use canned psychology on your patient, for there is no confidence so strong as that automatically generated by one who knows what he is trying to do for the situation in hand and for possible or probable dangers ahead. Nurses, properly instructed, work for you, and the insidious knocking which comes from the prejudice against strange procedures fades out.

A case well planned and carefully observed as it proceeds, with possible complications kept definitely in mind in advance—according to the nature of the disease—will furnish the doctor a surprising confidence in and expectation from his work, for he will find that he knows more osteopathy than he thought he did; and that his mind is not wholly on the niceties of certain technical procedures, the efficacy of which is still to be proven.

There is no doubt that what seem to be most ordinary osteopathic procedures in adjustment produce remarkable results *when the reason for doing them or for not doing them* is carefully considered instead of proceeding more or less aimlessly.

As scientific people we should place high value upon precision in technic, and of course we do, but there are many very complex procedures in osteopathic adjustment which are interesting more because of their complexity than because of their proven efficacy.

This is a case of bronchopneumonia.

Boy. Age eleven. Five feet, one inch. One hundred pounds.

Normal mentally, and free from organic disease. No history of operations except for tonsils, and with no present evidence of focal infection. No previous history of pneumonia, scarlet fever or diphtheria; and a history of normal and moderate course in parotitis, pertussis and measles.

This boy was ill for a week in the autumn; irritable and fatigued, with one degree of fever in the p. m., normal in the a. m. for first two days. He was kept in bed part of each day during this week; playing in his room at times, and occasionally about the house, but not out of doors.

He was treated for a contraction in the dorsal area, sixth to twelfth, which area revealed a right functional curve with contraction of musculature on both sides; much greater on the right side than on the left. After the second treatment (one on the first day, and one on the second) the slight temperature became subnormal.

A diagnosis was made of slight acidosis and indigestion which was laid to unusual ingestion of sweets; a moderate quantity but unusual for this patient.

No tests were made except for renal and chest, which were negative.

He returned to school, and seemed normal; but one week later he fell asleep in school and could not easily be roused. He was taken home, and I saw him two hours later. He was sleepy and irritable on being roused.

Examination showed no fever; no contraction; no sign of opisthotonos. Kernig's sign was negative. Reflexes were not exaggerated. Urine was normal as to casts, albumen and sugar, though pale and with low specific gravity.

He was given a simple enema, with no result. One hour later another enema resulted in his expelling a large stool of normal appearance.

He was allowed to sleep for eight hours after this. He roused himself three times to pass urine

—an unusual thing for him; he seldom urinated through a whole night when well.

Morning of the second day he was still somnolent, with no cerebral or cerebrospinal signs, but with a fever of 102, pulse of 120, respiration 24. A chest examination revealed no definite signs I could detect, but over the right lung anteriorly there *seemed* to be an area of slight dullness—mid-right chest but *not* extending to the axillary line.

On this evidence a provisional diagnosis of bronchial pneumonia was made, and treatment was begun by gently amplifying the intercostal spaces on both sides. There was no evidence of spinal musculature contraction; no special area constricted.

By night the temperature was 103, with no other changes—*except vomiting with bile, once.* No special contractions were noted, and no cerebrospinal signs except the continued and slowly increased somnolence. He slept all night.

Urine now changed to concentrated, dark and limited quantity (eight ounces for the night), with specific gravity of 1020.

Third day.—A. M. temperature 102, pulse 120, respiration 20. Patient less somnolent. More irritable. Some faint rales over the chest area noted above. I could not describe the rales; they were thin, faint and variable in sound—at times were not evident to me. The diagnosis of bronchial pneumonia was confirmed.

Still no special spinal contractions or signs were noted, except slight upper cervical contractions just appearing. An axis (right) adjustment, with carefully and slowly applied force, reduced the contraction.

(Here was confusion itself—no signs to go by—no treatment to give but to see to elimination, and to amplify the intercostal spaces on both sides. Elimination, by the way, was normal as to feces; no enema was used for two days. I decided to wait for more evidence. The somnolence and the general condition was put down to a profound toxemia, which fortunately did not have a severe cerebrospinal effect. It occurred to me that the toxic shock was so great that there was not enough energy to show muscular contractions).

Temperature at night 104. Pulse 120. Respiration 22. He had a good night—not even restless.

Fourth Day.—A. M. temperature 102. Pulse 118. Respiration 24. Urine same. Blood; reds normal—20,000 whites.

The same treatment to upper cervical was given. There was less somnolence. No pain. No severe cough *but* no sputum.

For four days (eight in all) the temperature, pulse and respiration were (approximately): temperature 103 to 104, pulse 120, respiration 22 in the p. m.; and temperature 101 to 102, pulse 110, and respiration 20 in the a. m., with the patient seemingly comfortable, without pain or severe cough.

On the eighth day the urine showed hyalin casts, round cells, and heavy trace of albumen. (On the sixth day there was sputum, with no blood, and moist rales.)

Ninth day.—Sputum and moist rales increasing. Other conditions same at the morning visit. At noon I was called by the nurse, as she was instructed to call me if cardiac signs appeared—arrhythmia, sudden change in pulse, or any abrupt change in respiration. The pulse was faster—130, with occasional intermittence, and respiration was shallow and 24 a minute, *temperature 102. Then it was that the right side fusiform* contraction and curve appeared in the area noted in the illness a week preceding the pneumonia (sixth to twelfth dorsal); now including the fourth and fifth dorsal above, and the first and second lumbar below—a definite spinal swerve to the right, and a hard contraction from the fourth dorsal to the third lumbar.

The atmosphere was tense, and trouble loomed. The nurses gave splendid co-operation at the point where they usually balk through fear of a procedure which is strange to them. I felt confident that the dorsal and lumbar contraction, carefully treated, would give the patient the best chance; at least something definite and reasonable appeared to account for the condition.

Almost during the treatment the patient's situation seemed to change for the better; and one hour after treatment the pulse was 120, temperature 103, and respiration 20. The sputum, which had been suppressed for a few hours, now appeared in increased quantity.

It was decided that this dorsal and lumbar treatment would be attempted every time the condition just described recurred. Accordingly, the next treatment was indicated three hours later, with even better results. Six hours more elapsed before the signs described appeared again; and twelve hours after the third treatment the same treatment was used.

Late p. m. of the tenth day the patient was comfortable. Pulse 100, temperature 103, respiration 18.

In four days more the temperature, pulse and respiration gradually subsided to 98, 90, 18, with increasing sputum (mucopurulent with occasional dark stain), and no pain in coughing; occasional slight vomiting with the cough.

The diet from the fourth day to the eighteenth day was milk, cereal broth strained, and orange juice, with occasional fresh beef tea for a change.

The urine cleared in three weeks, with no complication or increase in defect from the first evidence of functional renal involvement.

The diet was increased as appetite returned.

The patient was kept in bed one week after normal temperature was reached (occasional 99 p. m. temperature was noted during this week). The following week the patient did not leave the bedroom, and rested in bed one-half the time.

The third week after the temperature reached normal he was allowed about the house, and was gradually acclimatized to out of doors during the week following.

He was treated about every fourth day during convalescence—(subocciput) (Ax.R) and (third to twelfth dorsal bilateral)—which seemed to prevent the recurrence of the (fourth dorsal to second L.) contraction and curve described heretofore.

The treatment is too simple to describe:

Patient on right side—knees drawn up easily—operator in chair at bedside. Operator to pass left hand *under* patient's right side, and operator's

right hand *over* left side; move highest part of curve first. Move toward median line with rotary and forward motion toward operator—right (under) hand pulling forward more than left (upper) hand. Make the motion synchronous with inspiration, say every second, third or fourth breath. (This is important. It avoids disturbing the functional rhythm of the diaphragm in motion. No one knows how important this slight thing may be.) Move along the curve to any point which resists.

The peculiar thing about this case, to me, was the absence of any definitely disturbed area until noon of the ninth day, when the evidence in the third dorsal to second lumbar appeared (note that the same area was disturbed in the slight illness preceding the severe illness; it was probably part of the later process).

First, it may well be that what we call general treatment, incidentally including the lumbodorsal area, might have avoided the critical state which was reached; but that is little more than guessing.

Second, it may well be that the chest treatment first instituted was a good measure, but there is no evidence that it was—the ordinary course of the disease would progress about as it did up to the critical time. (The cough might have been eased by the chest tr.)

Third, it may well be that the semicrisis, or critical time, was ordinary, and that with no change in the treatment the result would have been the same.

All these things may well be true, but I believe the factor which was most important, and which influenced the result, was the restoration of the diaphragmatic action, which eased the heart strain and moved the blood stasis in the subdiaphragmatic group of vascular organs.

That the condition was serious at the critical stage, no one who saw it could doubt.

The peculiar toxemia which preceded the actual process was profound enough, in my opinion, to suppress even the energy necessary for reflex muscular contracture, and I believe there was no physiological failure until the diaphragmatic action was being reduced by the toxic load. The diaphragmatic action may have been stopping for a physiological rest, or it may have been stopping forever.

It is my conviction that the osteopathic procedure used at the critical stage was the deciding influence, and that no known drug could be as successfully used in such a situation.

In this case it will be seen that the major dependence for results was finally placed upon increased and unrestricted diaphragmatic action. This is so in many situations. It appears so often in these reports that a reader might decide that I am too dependent upon the treatment of that mechanism; but I don't care about that. It is a fundamental function in the general physiological processes; it affects them all.

There are certain times when diaphragmatic restriction, induced as a protective device by nature, should not be amplified without careful consideration; but even when that is so there comes a time when the chance must be taken. If a little amplification of diaphragmatic movement will serve in a situation where the toxic load must be dumped gradually upon the defensive mechanism, let that diaphragmatic movement be restored in a small measure, and gradually increased as the toxic load is disposed of.

Another important thing. When a mechanism is operating at full load, and showing no definite evidence of breaking down, it is an excellent time to do nothing but observe for a time (from ten to forty-eight hours, more or less); give nature a chance and give the patient a rest.

The case described here progressed favorably on entirely different treatment from that of a very similar case which will be described next month.

In the present case the diaphragmatic amplification seemed to be the key to the situation. In the similar case to be described next month diaphragmatic action needed scarcely any attention, the whole effective treatment being confined to the cervical and upper dorsal from the first cervical to the sixth dorsal. This was lobar pneumonia in a sturdy boy of six. The treatment differed entirely from that used in the case here described. Was this due to predisposing lesions in upper dorsal area, or are lobar and bronchial pneumonia entirely different in process?

JOHN A. MACDONALD.

AN INTERESTING FETUS

A most interesting specimen was sent us for the Institute exhibit a few days ago. Dr. O. R. Meredith, of Nampa, Idaho, sent both the fetus and the case history. The fetus has a single eye, not quite in the center of the forehead. There are several other slight defects and at some later date these will be more carefully studied.

This is the product of a thirteenth pregnancy. Five living children were produced; there were three other miscarriages, and four children died during early life; causes unknown.

Three years before this fetus was born the mother had a rotated innominate which Dr. Meredith treated successfully. At about the same time an umbilical hernia received successful surgical treatment. No pregnancy occurred during the succeeding months until this time. Pregnancy was not suspected because the mother was forty-five years old and the amenorrhea was supposed to be part of the menopause.

Two years before the birth of this fetus the father suffered an attack of inflammatory rheumatism which responded very promptly to osteopathic treatment. He received extensive dental care at about the same time and his health was good thereafter. His work necessitates heavy lifting, but is otherwise wholesome.

The causes of these deformities are not well known. In ordinary medical literature the miscarriages recorded would be supposed to indicate a syphilitic history. But in this case there is no evidence of syphilis in either the mother or the father. Repeated miscarriages occur in the animals at Sunny Slope as a result of bony lesions, and we may have many case records of repeated miscarriages occurring in human families as a result of bony lesions. Both in animals and in human beings

normal pregnancies often follow the correction of lesions, whether the lesion occurs in the male or in the female.

Our laboratory animals do not have syphilis; they do have repeated miscarriages as a result of bony lesions in either the male or the female; they do bear normal young after correction of the lesions. In human families where no evidence or history of syphilis can be found, repeated miscarriages do occur if either the husband or the wife has a lesion of the lumbar vertebræ or the innominates. After correction of the lesion normal pregnancies occur.

In laboratory animals the young born of lesioned parents are always somewhat deformed, and even after a lesion has been corrected, deformed young may be born. Human babies are not exactly alike, hence slight deformities escape notice. That deformed young may be born as a result of syphilis or of other diseases of either husband or wife, or both, seems to be fairly well proved. That deformities in human offspring may be due to bony lesions in the father or the mother is a possibility which requires careful consideration. Since minor defects in the structure of the brain provide a basis for certain insanities of later life, the importance of the immediate correction of lesions in boys and girls, the future parents of the race, is evident.

These considerations suggest an old discussion as to the possibility of the inheritance of acquired characteristics. Without taking up this discussion in its original form there are certain facts which should never be disregarded and which are certainly concerned in the development of young. First, it must be remembered that the germ cells are alive from the time they are first differentiated early in the embryonic life of the prospective parent, until they are cast from the body or are utilized in the development of a new individual. During the intervening time they are dormant, that is, their metabolism is very slight and they remain apparently inert. But they are not dead during the dormant period. They take up some food material and give off some katabolites. Anything which affects their nutrition or which interferes with the adequate removal of their wastes may affect their vitality.

Vertebral lesions do disturb the circulation through the ovary and the testis, and thus do affect both the nutrition and the removal of katabolites of these organs. If lesions are speedily corrected, the evil effects are probably negligible. If the lesion persists, serious injury is done to the reproductive cells in laboratory animals, and there is good reason for believing that a similar relation holds true for human beings. In this connection it must be remembered that there is no criterion of perfection for human babies, and that for this reason defects which do not materially affect appearance or health are disregarded.

The possibility that slight departures from normal, due to maternal or paternal lesions, might be a cause for mutations was first noted by C. E. Still, Jr., last winter. Since that time one of the kids at Sunny Slope, born of a lesioned mother, has been found with an abnormal and still very pretty change in the location of the little tassels (doodads) characteristic of the Toggenberg goat. These structures are found beneath the chin of normal Toggenbergs, but in pregnancy of lesioned Toggenbergs the tassels may be eccentrically placed or may be absent. In this one kid, however, the tassels are symmetrically placed just beneath the ears. In that new location they are quite attractive to human eyes. If that location should render the kid more attractive to males of the same race, or if it could add to the strength or the longevity of the individual it might become a factor in producing a new strain of the Toggenberg goat. These considerations are, as yet, purely theoretical. This kid with the ear-bob doodads will be bred as soon as she is old enough and we will see what happens.

The fact that babies born in families without lesions are, as a rule, healthier and stronger than babies born of parents with lesions is absolutely proved. That pregnancy and labor are more nearly normal when osteopathic treatments are given than when lesions remain uncorrected is also a fact.

L. Burns.

PULLING IN UNISON

Would it be all right to philosophize for a moment? I see so many things in The Forum which seem to put some of our people in a sort of one-tract position. And in The Journal, too, many articles seem to exclude the variety and number of essentials to the conduct of a general practice.

No two of us are exactly alike; no two can give the same kind of adjustments for the simple reason that it is impossible for any two people to leave the same type of finger prints on the backbones of our patients. One can't walk with his eyes nor see with his feet; and it is just as impossible for one to whom surgery is impossible to appreciate a surgeon's viewpoint as it is for him to walk on his eyes. Similarly, many of our surgeons cannot get the viewpoint of those who are giving high grade spinal adjustments. Therefore, it seems to me, that as a profession it would be decidedly advantageous for us to study a little science, chemistry, biology, anatomy, physiology, physics and astronomy, too, if one wishes, and some philosophy to get the ideas of some of our old philosophers. Epictetus is always refreshing; Socrates and his great interpreter Plato, always have something of interest and of everyday application.

A good many of our people seem to think that patients are made for doctors. I've always thought doctors were made for sick folks. Wouldn't it be much better if we were to stop pulling our this or that particular technic, this or that particular school of therapy, this or that particular partisanism in politics and pull in unison for the benefit of all who are sick? Would not pulling in unison keep those who are well out of sickness?

W. Curtis Brigham.

OSTEOPATHIC PRINCIPLES OF SURGICAL METHODS

I wonder how many people of our profession know the real value of application of osteopathic principles in surgical methods. The hospital situation makes it impossible for many of our profession to follow through surgical cases. If ever a patient needs osteopathic attention it is following an operation. Scores of patients who would otherwise suffer intolerably may be relieved and go through a normal and satisfactory convalescence if osteopathic principles in manipulative methods are applied from the very first day of the operation.

There will always be argument as to the type of cases that should be operated; that will depend largely upon the experience of the doctors. But if the operation must be performed, let us give the patient true postoperative osteopathic care.

W. CURTIS BRIGHAM.

MEDICAL INTOLERANCE

Leaders in every modern line of human endeavor, in religion, in statesmanship, in business, in the arts and sciences, are the men and women who are governed by the spirit of tolerance and reasonableness and their relationship with their associates, their competitors and the public in general. The appeal to bigotry, narrow-mindedness and bygone prejudices has been relegated to the small fry of circumscribed intelligence.

It is, therefore, to be regretted that Dr. Morris Fishbein, editor of the Journal of the American Medical Association, should attempt to hog-tie the medical profession in the straight-jacket of intolerant conformity to dogmatic theories from which the helpers and healers of humanity at large have of late been so successful in freeing themselves. Yet no other construction can be placed on his recent lectures at the Pasadena Community Playhouse and the Beaux Arts Theater in this city. In them were few helpful thoughts for those who rely on the regular medical practitioner and a great deal of caustic abuse of all who differ with Dr. Fishbein as to ways of ministering to the general health.

Of course Dr. Fishbein [does not] represent the whole medical profession . . . . . But since he has used his connection with the American Medical Association to launch public attacks on large bodies of honorable and respected citizens, that association should clear itself of the charges of arrogant intolerance in which the doctor-editor has involved its members.

His slur on Los Angeles as a paradise for medical quacks is a boomerang that hits hardest the very profession Dr. Fishbein has elected himself to defend. For Los Angeles has at least as large a number of regular medical practitioners per capita of population as any other city in the United States. Moreover, these regular practitioners enjoy the confidence of the community to the same degree as the naturopaths, the hygienists, the diet experts and the believers in the simple form of healing-through-faith employed by Christ Himself.

Had Dr. Fishbein been born in Judea in the days of Herod the King he would no doubt have been among the first to fulminate against the unauthorized Nazarene who dared to heal the sick without drugs or knife. He would have included in his list of "healing fads and quackeries" the case of the woman in Galilee "who had an issue of blood twelve years, who had spent all her living on physicians, neither could be healed of any," and the Master's reply to her belief in Him, "Thy faith hath made thee whole; go in peace."

Followers of this faith have no quarrel with their neighbors who prefer the system of medical ethics built on the original ideas of Hippocrates and Galen. But neither should an advocate of this one limited school presume to ridicule those who find help and healing in the precepts and example of the Founder of the Christian religion, whose teachings are accepted by a large majority of the American people.

If there are fifty cults in this community formed to fight disease, outside the orthodox medical pale, as Dr. Fishbein alleges, it is but another sign of the immensity of this field of research and how much territory remains to be covered. Should some explorer discover that many ailments, now allocated to the pharmacopoeia and the operating table, could be as effectively cured by attention to diet and hygiene, he would decidedly deserve well of his fellow-beings. Medical diagnosis under the canons of the regular school is not such an exact science as to call for sneering reference to the substitution of the violet rays of the sun for the old-time allopathic drug doping in the treatment of tuberculosis.

By branding all indiscriminately as quacks, faddists, fakes and imposters who do not subscribe to his narrow views of what constitutes the practice of healing, Dr. Fishbein has displayed an inflated ego which happily is rare among the earnest men and women who comprise the great modern army of doctors and physicians. No one denies that there are many charlatans and quacks in this, as in every other large city, who exploit the sufferings and sickness of humanity for their own personal profit. It is the duty of every good citizen to expose such practices when they come under his notice. In doing so Dr. Fishbein would have been properly within his province. But this is an entirely different proceeding from virulently attacking organizations and systems recognized as beneficial by large numbers of our best credited and most influential people.

—Los Angeles Times.

OSTEOPATHIC CHILD STUDY ASSOCIATION

Founding Membership.—Not available until the association is ready for its endowment.

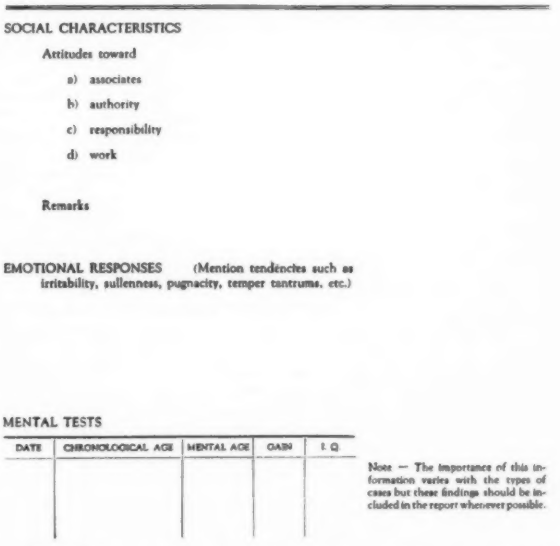
Supporting Membership.—Physicians and laymen who pay the annual membership fee of one dollar.

To constitute a roster of those interested in the establishment of osteopathy's claim to recognition as an important factor in the field of social service.

Contributing Membership.—Conferred by the executive board in recognition of scientific work done in the field in which this association is carrying on its investigations.

Contributing members will be exempt from all financial obligations.

The above statement presents what we consider a fundamental differentiation in the matter of membership. Provision is made for the encouragement and support of a group of scientific workers; at the same time it has been made possible for all who are interested, physicians and laymen, to share in the development of the proposed osteopathic program of child study.



SOCIAL CHARACTERISTICS

Attitudes toward

a) associates

b) authority

c) responsibility

d) work

Remarks

EMOTIONAL RESPONSES (Mention tendencies such as irritability, sullenness, pugnacity, temper tantrums, etc.)

MENTAL TESTS

DATE	CHRONOLOGICAL AGE	MENTAL AGE	GAIN	I. Q.

Note — The importance of this information varies with the types of cases but these findings should be included in the report whenever possible.

Facsimile of a part of the case history blanks used by the Osteopathic Child Study Association.

The survey of the osteopathic profession which was made in May, 1929, established contact with physician-stu-

dents and laid the foundation for the research work. Already the studies are under way and there is promise that within a year a sufficient number of the profession's individual practitioners and clinical groups will have entered the field to insure the satisfactory establishment of the research in this specialization. The association's statistical department stands ready to receive and examine reports of single cases from private practice as well as the reports of larger studies.

More than a year ago a group of laymen took hold of the project of developing a child study movement which should bring osteopathic research into harmony with the work of educators and psychologists, the emphasis to be placed on statistics. The movement has been supported by lay funds. Now everything is ready for an expansion and the extension of membership. The immediate need is for a mass of information and for this we are looking to the osteopathic profession.

A special form has been prepared for the recommendation of names for our files. In every community there are among the friends of osteopathy social-minded laymen who would welcome the opportunity to participate in such a work as is proposed, and who would wish to receive the association's bulletins. Another group concerning whom we shall need to compile information is made up of students and workers in the child study field, many of whom are unacquainted with osteopathy. There is no need for argument as to the desirability of lay leadership for such a national survey. Nor can a hearing be had with educators and psychologists until there are authentic reports of scientific osteopathic work in the field of child study.

One thousand osteopathic physicians as supporting members—or more. Is this too much to ask with a membership fee of one dollar? The money might be raised otherwise but the work cannot go forward except with the profession's co-operation. Interest and the support which is prompted by thoughtful consideration cannot be measured by commercial standards. Moreover we shall be evaluated.

JENNIE ALICE RYEL.

STUDIES IN THE OSTEOPATHIC SCIENCES

This series of books is unique in osteopathic literature. The most conspicuous feature in all the volumes is the emphasis placed upon facts determined by actual experimentation.

"Basic Principles," the first volume, was prepared hastily, from material which had been worked out during several years of experiment in the laboratory of physiology of The Pacific College of Osteopathy.

In that college it seemed best to have experimental demonstrations of osteopathic principles, and this book was prepared to be used in a class which began at a certain time. The experiments were already on record, and the book was ready for the printer in six weeks. An unfortunate selection of a printer was made, and the book contains many errors in printing. It does not contain any error of fact or of osteopathic viewpoint.

"Nerve Centers," the second volume, is devoted to a description of the nerve centers of the spinal cord and their relation to viscera. The book is based upon experimental work done in the laboratory of physiology of The Pacific College of Osteopathy, and the results of the experiments are controlled by case reports from the clinic of that college.

"Physiology of Consciousness," the third volume, is the first, and so far, the only book which interprets the phenomena of consciousness and behavior in anatomical and physiological terms. This is also based upon experimental work in the laboratory of physiology of The Pacific College of Osteopathy, and upon the records of the psychiatry clinic of that college.

Dr. E. R. Booth of Cincinnati, at that time chairman of the education department of The A. T. Still Research Institute, supervised the publication of the second and third volume of the series. These are free from serious errors of printing.

"Cells of the Blood," the fourth volume, is now about ready to go to press. The emphasis placed upon the blood by Dr. A. T. Still has not led to the study of that fluid which might have been expected by many osteopathic institutions. This book is based upon experimental and clinical evidence, as are the others of the series. The manuscript was ready for the printer in 1914, but certain events of world-wide importance interfered with the publication of this book, as with the affairs of many other people. Since that time the material has been kept up to date, as the studies made of blood cells in the laboratories of The A. T. Still Research Institute have amplified the results of the studies made in the clinic and laboratories of The Pacific College of Osteopathy. More than twenty-seven years of work are embodied in this volume.

The effects of bony lesions upon the blood cells is thoroughly discussed. Illustrative case records are given of many common and several rare diseases. The effects of various methods of treatment upon the blood cells is described.

This fourth volume is larger than the others. It contains 400 pages, with fourteen pages of colored plates made from microphotographs of blood cells and from water color paintings made from camera lucida drawings.

"Cells of the Blood" is priced at $8.00, double the price of the other volumes, but it is costing more than twice as much to publish the book on account of its larger size and the more expensive illustrations.

Orders paid in advance are at $6.50, which facilitates financing the publication.

Orders for delivery after publication will be filled at $8.00, and the books will be sent immediately after the advance-payment orders have been filled.

SOME OPINIONS

The manuscript for "Cells of the Blood" has been referred to several people for criticism. These readers have been good enough to express enthusiastic approval of the work. They say:

"Essentially osteopathic in treatment."

"A book to show medical friends what osteopathy really can do."

"Wonderfully clear and readable."

"Easy to understand, yet scientific and correct."

"Explains many things which have puzzled me in case reports."

"Far better than any book on blood yet published."

"Good enough to pay for a quarter-century of study."

"I'll give $25 for a copy, if necessary, in order to secure it."

"Very clear, definite, practical and useful."

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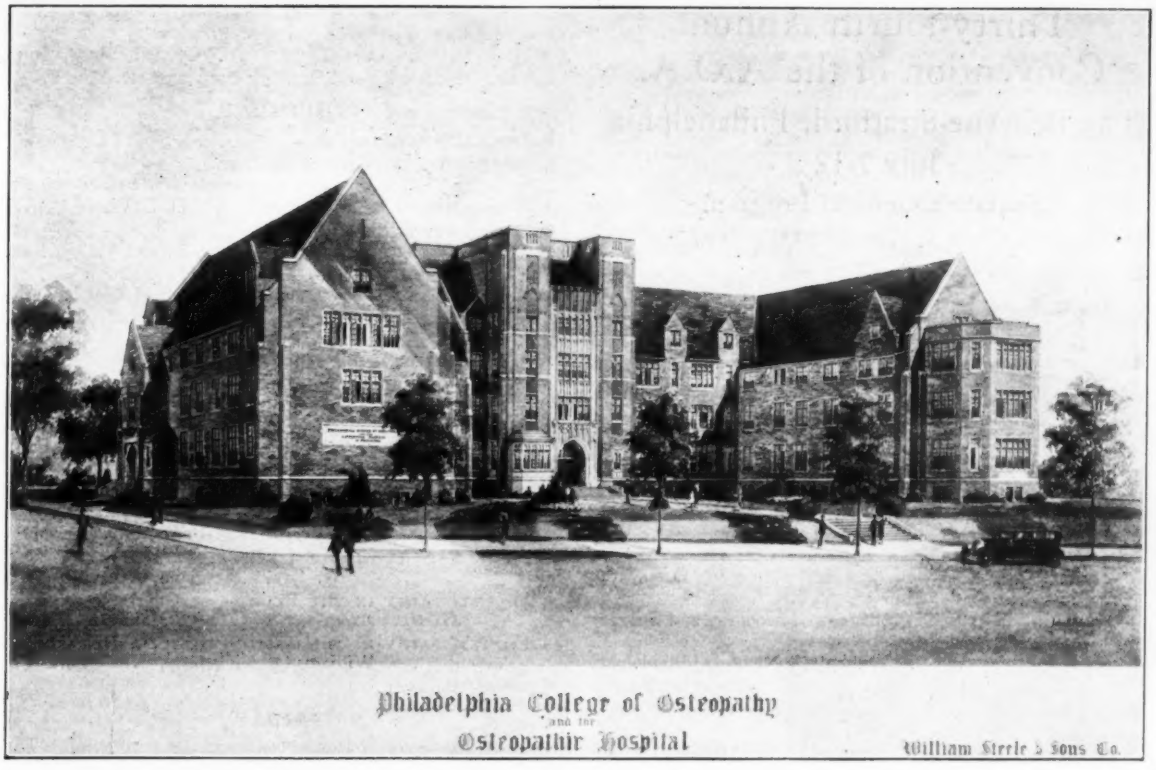

Formal Dedication and Opening of New Hospital Building

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Charles J. Muttart, 1813 Pine St., Philadelphia.
D. S. B. Pennock, 1813 Pine St., Philadelphia.
Nettie C. Turner, 924 Land Title Bldg., Philadelphia.

COMMITTEES

Group I.—Chairman: Nettie C. Turner, 924 Land Title Bldg., Philadelphia.
Women's Organizations; Jennie Chase, York Road and Rockland Sts., Philadelphia.
Health Talks; Arthur M. Flack, 3414 Barring St., Philadelphia.
Allied Societies; C. Paul Snyder, 1721 Walnut St., Philadelphia.

Group II.—Chairman: D. S. B. Pennock, 1813 Pine St., Philadelphia.
Hospital; Edward G. Drew, 1408 Spruce St., Philadelphia.
Clinics; Frances J. Smith, York Rd. and Rockland Sts., Philadelphia.
Examination of Physicians; F. C. True, 708 Station Ave. Haddon Heights, N. J.

Group III.—Chairman: Edward A. Green, 20 W. Montgomery Ave., Ardmore.
Registration; R. N. Eberly, 2010 Chestnut St., Philadelphia.
Information; Ernest A. Johnson, 3235 N. Carlisle St., Philadelphia.
Transportation; J. E. Leuzinger, 4937 N. Mervin St., Philadelphia.
Room Reservations; G. L. Lewis, 140 W. Luray St., Germantown, Philadelphia.

Group IV.—Chairman: C. Earl Evans, 512 E. Broad St., Chester.
Publicity; H. W. Evans, 1526 N. 16th St., Philadelphia.
Program; Charles H. Soden, 717 Corinthian Ave., Philadelphia.
Entertainment; C. Earl Evans, 512 E. Broad St., Chester.

Group V.—Chairman: Charles J. Muttart, 1813 Pine St., Philadelphia.
Hotel; O. J. Snyder, 611 Witherspoon Bldg., Philadelphia.
Halls and Furnishings; Wm. J. Furey, 1823 Widener Bldg., Philadelphia.
Decorations; Mrs. J. Ivan Dufur, Ambler, Pa.
Estimate and Budget; Edward A. Green, 20 W. Montgomery Ave., Ardmore.

Thirty-fourth Annual Convention of the A.O.A.

The Bellevue-Stratford, Philadelphia

July 7-12

Tentative General Program

ALEXANDER F. McWILLIAMS, Chairman

MONDAY

10:30 a. m.—Music
Invocation . . . Rev. Charles B. DeBell
Address of Welcome
Response
President's Address . John A. MacDonald, Boston
Announcements
12:00-1:00—Lunch (Chairmen of Sections)
1:30—Report From Local Chairman . . . . . C. Haddon Soden or Edward A. Green
1:40—Osteopathy in Foot Work . . . . . C. I. Groff, Mason City, Iowa
1:50—C. J. Gaddis, A.O.A. Report. Questions.
2:00—Dean Edgar O. Holden . . . . . Philadelphia College of Osteopathy
2:10—Dean H. G. Swanson . . . . . Kirksville College of Osteopathy and Surgery
2:20—Art of Practice in Osteopathy . . . . . William S. Nicholl, Philadelphia
2:30—Osteopathy in Surgery . . George J. Conley
2:50—Intermission—15 minutes
3:05—Legislation and the Colleges . . . . . Asa Willard, Missoula, Mont.
3:15—Technic . . . . R. N. MacBain, Chicago
3:25—American Osteopathic Foundation—Questions
3:40—Research Institute
3:55—Pediatrics . . Leo C. Wagner, Lansdowne, Pa.
Evening—President's Reception.

TUESDAY

9:00—12:00—Sections
1:30—Contacting Osteopathy . . . . . Victor W. Purdy, Milwaukee
1:45—President John A. MacDonald . . Boston
2:05—Dean B. F. Wells . . . . . Chicago College of Osteopathy
2:15—The Application of Old-Time Osteopathic Treatment to the Cure of Insanity . . . . . A. G. Hildreth, Macon, Mo.
2:35—Dean L. Van H. Gerdine . . . . . College of Osteopathic Physicians and Surgeons . . . . . Los Angeles
2:45—Dean Edward B. Sullivan . . . . . Massachusetts College of Osteopathy
2:55—Intermission—15 minutes
3:10—Dean J. P. Schwartz . . . . . Des Moines Still College of Osteopathy
3:20—The Skin Game . Dale S. Atwood, Johnsbury, Vt.
3:35—The Origin of Infections . . . . . Ernest R. Proctor, Chicago
3:50—Surgical Reflexes . . Orel F. Martin, Boston
4:05—Osteopathic Orthopedics of the Lower Extremities . . John Martin Hiss, Columbus, O.
4:30—Dean J. M. Peach . . . . . Kansas City College of Osteopathy and Surgery—Clinical Osteopathy in the Kansas City College
Evening—Special Entertainment (to be announced)

WEDNESDAY

9:00—12:00—Sections
Morning and Afternoon Golf Tournament, Auspices American Osteopathic Golf Association
Afternoon Devoted to an Osteopathic Program by the Osteopathic Women's National Association
Program Chairman—Charlotte McCluskey . . . . . Council Bluffs, Iowa
Evening—Fraternity and Sorority Banquets, etc.

THURSDAY

9:00—12:00—Sections
1:30—Osteopathy in Acute Diseases . . . . . C. Earl Miller, Bethlehem, Pa.
1:40—Subject to Be Announced . D. L. Clark, Denver
2:00—Subject to Be Announced . . . . Harry W. Gamble, Missouri Valley, Iowa
2:20—Osteopathy Undefiled . . . . . Thomas L. Ray, Fort Worth, Texas
2:40—Osteopathy First, Last and All the Time . . . . . John H. Styles Jr., Kansas City
3:00—Intermission—15 minutes
3:15—Subject to Be Announced . . . . . Carl P. McConnell, Los Angeles
3:30—Subject to Be Announced . . . . . Wilborn J. Deason, Somes Bar, Calif.
3:45—Subject to Be Announced . . . . . Jennie Alice Ryel, Hackensack, N. J.
4:00—Osteopathic Diagnosis . . . . . Perrin T. Wilson, Cambridge, Mass.
4:10—A. T. Still—The Scientist . . . . . W. Banks Meacham, Asheville, N. C.
4:30—Osteopathy in the Practice of Obstetrics and Gynecology . . L. C. Hanavan, Chicago
4:40—Osteopathy in the Gastro-intestinal Diseases . . . . William O. Kingsbury, New York City
Evening—Banquet

FRIDAY

9:00—12:00—Sections
1:30—Osteopathy in the Practice of the Eye, Ear, Nose and Throat . . . . . Leland S. Larimore, Kansas City
1:40—Subject to Be Announced . . . . . Frank Farmer, Los Angeles, Calif.
1:50—Subject to Be Announced . H. L. Riley, Chicago
2:00—Subject to Be Announced . . . . . Russell R. Peckham, Chicago
2:20—Surgical Reflexes . W. Curtis Brigham, Los Angeles
2:40—Subject to Be Announced . . . . . Elmer T. Pheils, Birmingham, Eng.
3:00—Incipient Insanity . J. Ivan Dufur, Ambler, Pa.
3:15—Subject to Be Announced . . . . . C. Haddon Soden, Philadelphia
3:30—Subject to Be Announced . . . . . Harold I. Magoun, Scottsbluff, Neb.
3:45—Subject to Be Announced . . . . . James A. Cozart, Canonsburg, Pa.
Evening—Entertainment to be announced

HISTORIC PHILADELPHIA

One of the earliest of American cities, and the center of the stirring events of the Revolutionary War and the birth of this nation, Philadelphia has an unusual appeal for visitors.

It is to Philadelphia's credit that, being custodian of the many shrines associated with the early life of this republic, it has faithfully preserved them, given them fitting settings for the visitor, and welcomes hundreds of thousands of visitors every year to them.

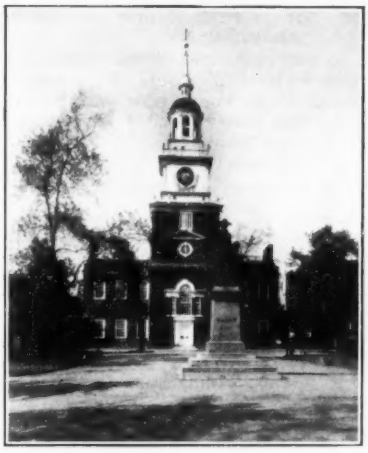
The majority of these buildings and settings of historic significance within the city are clustered in three groups, easily accessible. One is in the city's center, with Independence Hall, containing the Liberty Bell, as the center. A second group is in Germantown, clustered about the Chew Mansion, where the Battle of Germantown was fought.

The third group is in Fairmount Park and consists of famous historic dwellings identified with the early history of America, and includes the home of William Penn, founder of the Commonwealth of Pennsylvania.

All around the city, too. are to be found battlefields

dyed with the blood of Colonial soldiers. All are preserved for visitors.

From King Charles II of England, William Penn obtained a land grant to the country in and about Philadelphia. In 1681, after carefully planning the type of settlement which was to be founded on his grant, William Penn sent Captain Markham to this country as deputy-governor and followed himself, shortly afterward.



Independence Hall, Philadelphia.

It was Penn who selected the name Philadelphia, it was Penn who laid out the plan of the city (the first definite city planning in America, if not in the world), who devised the checker-board system of streets, which still is followed; and it was Penn who came on the ground and formally established the city that was to be the haven of all those in the old world who desired freedom of conscience, freedom of education, and freedom to develop.

Instead of the narrow, winding, crisscross streets so common in the early settlements, there was a uniformity about the city that Penn developed, with average streets fifty feet wide and with larger streets at certain intervals. In the city, also, he laid out "squares" or parks, a system that since has been widely developed.

Within two years the development of Philadelphia was remarkable. In that time 200 buildings had been erected and population numbered 2,400 people. By the close of 1685 ninety ships had arrived, bringing 7,200 persons. This was the largest trans-Atlantic migration up to that time and was not equalled until in the eighteenth century the Scotch-Irish and German-Palatines came to Pennsylvania.

In the eighteenth century Philadelphia was the leading city of the American continent. This was due primarily to religious toleration, the welcome extended to better types of men and women from foreign nations, the great natural resources and diversified industries and agriculture which furnished material for commerce, and the mingling of sects and races which developed an intellectual type more liberal and progressive than in any other section of the new country.

In the period preceding the Revolution, Philadelphia had developed beyond all cities in education, arts, science, industry and commerce.

In the events leading up to the Revolution, Philadelphia became a storm center. In 1773 a tea meeting in Philadelphia passed resolutions of protest, which served as the model for resolutions later adopted in Boston and eventuated in the famous Boston Tea Party. Later, on September 5, 1774, the First Continental Congress met in Carpenter's Hall in Philadelphia to adopt measures to encourage Massachusetts, and to threaten the English merchants with non-importation and non-exportation agreements. In May, 1775, in the State House, better known now as Independence Hall, the Second Continental Congress met. There Washington accepted command of the Continental Army, there the Declaration of Independence was debated and adopted on July 4, 1776, and there Congress received the French Minister, the first foreign representative to this country.

On October 4, 1776, the first British advance to Philadelphia, then the capital city, was stopped at the Delaware River, and later, at the close of 1776, Washington won his brilliant victory at Trenton, above Philadelphia on the Delaware. The following year the British advanced an army from the Chesapeake Bay, defeated the Continental troops at Chadd's Ford and took Philadelphia. An effort made to recapture it, which barely failed of accomplishment, resulted in the battle of Germantown, on the site of Cliveden, the famous Chew Mansion.

Washington drew off his troops to Valley Forge in the hills above Philadelphia, and there spent the darkest days of the war in the bitter winter of 1777-1778.

Visitors to Philadelphia can live over again the trying days of the Revolution. They can visit the buildings, carefully preserved as shrines in which the historic events of the Revolution occurred. At Valley Forge they can inspect the entrenchments of the Continental Army, miles of which still are visible, and visit Washington's headquarters. This has been made a memorial ground that is worthy of a visit.

Along the Delaware, in addition to the sites of the battles of Trenton, and Princeton, and Washington's Crossing, the forts built below Philadelphia to protect the city from naval attack still are standing.

A circle of thirty miles, drawn about Philadelphia, encloses buildings, museums and collections of more value in Revolutionary history than in any other district in America.

Carpenter's Hall, Philadelphia.

When the Revolution was ended, Philadelphia was the meeting place of the Constitutional Convention, which, on May 14, 1787, began work upon the Constitution of the United States, which was adopted on September 17th of the same year.

From 1790 to 1800, Philadelphia continued as capital of the new nation. There in Congress Hall, the work of Congress was carried on, the Supreme Court began its remarkable career, and in Philadelphia, also, the United States Mint, in the first building ever owned by the National Government, was established, and the new nation obtained its start in life.

Among the many historic buildings in Philadelphia, in addition to Independence Hall, Carpenter's Hall and William Penn's House, there are the Betsy Ross House, standing between rows of modern city buildings in the busy section of the city, and a group of famous Colonial churches. In the Betsy Ross House, George Washington, George Ross, and Robert Morris, financier of the Revolution, sat with the immortal Betsy and designed the first American flag, the present emblem, which she sewed there.

Christ Church, on Second Street near Market, begun in 1727, was associated with the city's early history. In it Washington worshipped along with other leaders in the Revolutionary days. Close by, at Fifth and Arch Streets, Benjamin Franklin and Robert Morris lie buried.

Old Swedes Church, sometimes known as Gloria Dei, completed in 1700, Saint Joseph's Church, built in 1732, Saint Peter's Church, built in 1761, and Saint Mary's Church, erected in 1763, are other shrines of Colonial history still preserved in the city.

"FRIENDLY CHATS"

is being well received. Have you ordered your copy yet?

A doctor writes: "Was certainly delighted with Friendly Chats. It is a creditable production, and can certainly be used to good advantage in spreading the osteopathic message."

SEE OFFER ON COVER

Department of Professional Affairs

RAY B. GILMOUR, Chairman
Sioux City, Iowa

BUREAU OF HOSPITALS

OREL F. MARTIN, Chairman
Boston, Mass.

LAUGHLIN HOSPITAL, POMONA, CALIFORNIA

Dr. Harry T. Laughlin has established an osteopathic hospital at Pomona. The first unit of the building was erected two years ago and has been used as private offices of Dr. Laughlin. It has now been remodeled and contains the reception room, office, surgery room, laboratories, sterilizing equipment, etc.

The hospital rooms are in another unit, joining the first by an attractive arcade. Hospital beds and other furniture are finished in quiet colors instead of the customary white.

Northwestern Hospital, Seattle.

OSTEOPATHY WELCOME IN NORTHWESTERN HOSPITAL

Dr. E. W. Pruett and other osteopathic physicians and surgeons of Seattle, Washington, announce that osteopathic physicians or any others licensed to practice in the state of Washington, are welcome to work, within the limits of their legal rights, in the new Northwestern Hospital which was opened in Seattle, in October. This is a 100 bed institution, six stories high with full basement.

The new hospital, which is located within easy walking distance of the business section of the city, is the outgrowth of the Homeopathic hospital which has been in operation for the past five years, and in which osteopathy was welcomed.

It is stated that five years ago, eight physicians, members of the county, state and American Medical associations, were barred from the standardized hospitals of the city on account of practices which did not meet the approval of their organizations. They established a small hospital of their own, and later, with the help of another medical doctor, they organized plans for the new institution. It cost $250,000 and was financed by the sale of stock, a part of which is held by osteopathic physicians, two of whom are members of the staff.

It is stated that members of the American College of Surgeons who have been through the hospital, say it is by far the finest institution of its kind in the city and the only one which really meets the requirements of the American College of Surgeons for standardization, so far as building, equipment, etc., are concerned. But of course, on account of those who are admitted to practice, it cannot be standardized.

The president of the board has assured osteopathic physicians in Seattle that a welcome will be extended to the osteopathic profession for the use of the hospital, in case the convention goes to Seattle in 1931.

ROCKY MOUNTAIN OSTEOPATHIC HOSPITAL

Dr. R. R. Daniels, manager of the Rocky Mountain Osteopathic Hospital, reports that it has just finished the most succesful year in its history.

The Denver Osteopathic Women's Association, meeting twice monthly, has been one of the most active and useful organizations to the hospital. Much material has been contributed by this group.

Dr. Howard E. Lamb, chairman of the Furnishings Committee, reports that fourteen members of the hospital association had arranged to be responsible each for the furnishing of one room, at a cost of $168.58. All but two of the rooms had been accounted for at the time of the published report.

MASSACHUSETTS OSTEOPATHIC HOSPITAL

The December number of the *Massachusetts Osteopathic Hospital News* reports that the out-patient department clinic is doing splendid work which is made possible by the wonderful cooperation of the doctors most of whom never miss a clinic day when on service. Several of these doctors come from a great distance, as for example, Dr. Margaret Poole, Fall River.

Recently, special afternoon clinics have been instituted. Beginning November 22, Friday is clinic day.

OPEN DOOR SANITARIUM

The Open Door Sanitarium is a small private institution at Delaware, Ohio. Dr. L. A. Bumstead is in charge. In a letter recently sent to interested parties, Dr. Bumstead reports that the year 1929 has seen sixty per cent more service rendered in the Open Door Sanitarium than any previous year.

Surgical Department, Northwestern Hospital.

Department of Public Affairs

VICTOR W. PURDY, D.O., Chairman
725 Caswell Bldg., Milwaukee, Wis.

NORMAL SPINE WEEK
March 15-21

Our ideal should be to give all children their right to a good start in life, physically, mentally and morally. We should not be selfish or limited to the community in which we live, but work for betterment everywhere, so that the total will be a continent-wide influence for good.

Normal Spine Week is a national effort for the simultaneous spreading of the gospel of service which we, as osteopathic physicians, are trained to render in the most efficient way.

Every community which has the personnel to maintain a clinic should have one. Those already conducting a clinic should extend to their neighbors what support it is possible to give.

A normal spine week manual has been prepared which gives in detail the scope and aims, how to start, a suggested plan, methods of procedure, how to reach the newspapers, contests, and various educational plans. This man-

ual should be in your hands if you intend to participate in the observance of Normal Spine Week or propose starting a clinic.

The osteopathic film, Dan's Decision, would be a fitting climax to your week's program, especially if you arrange for a public meeting the last night, to which would be invited all those who have shown an interest in your efforts, also the boys and girls with their parents.

This is the seventh year that a week has been designated as a particular time for conducting a clinic for the free examination of children.

Dr. E. C. Brann, chairman Bureau of Clinics, and the Central office, will cooperate in making your worthy efforts a success.

Mid-Year Report of the Department of Public Affairs

Our objective has been to put into motion the machinery which, if kept going, will automatically demonstrate the accomplishments of osteopathy in our various contacts with industries and institutions. This machinery consists of a co-ordination of the activities of the various bureaus and committees under the department of public affairs.

As a means to an end, an industrial and institutional service statistics blank was made up and printed so that accurate records can be reported to the Central office of work done.

Dr. Ward states, "The industrial service blank is very well arranged and I believe will show tangible evidence of the service we can do industrially and for institutions when enough time elapses to compile several hundred cases. I have sent a copy of the blank to all state chairmen, both industrial and to those responsible for athletics."

In preference to outlining the work accomplished to date by the various chairmen I wish to attach their reports hereto.

The osteopathic film, Dan's Decision, is of such import in bringing osteopathy to the public, giving pictorial evidence of adequate housing facilities for the students, equipped to give true scientific training, and in all to create favorable opinion from the expressed endorsement by well known personages and, from the story itself, an insight into the character of training received and undergraduate experiences and finally the satisfaction experienced in knowing that the osteopathic physician, thus properly prepared, has the knowledge and skill to assist nature in combating disease and disability, that we feel that effort should be made to stimulate the showing of this film in every high school in the country and before other interested groups. Attached to this report are suggestions and plans for distribution of Dan's Decision, written by Dr. M. V. Baxter, who is the author of the first scenario of the film.

V. W. P.

BUREAU OF CLINICS

E. C. BRANN, Chairman
Wichita, Kansas

NORMAL SPINE WEEK

Requests are already in from doctors who want to get an early start on plans for Normal Spine Week, March 16 to 22.

A manual of plans for Normal Spine Wek and for the conduct of clinics in general has been prepared and is gladly sent on application.

OAKLAND CLINIC CHRISTMAS PARTY

A distribution of Christmas presents to 150 poor children at the East Bay Osteopathic Clinic took place on Saturday, December 21. Members of the Osteopathic Physicians and Surgeons' Club contributd presents.

POMONA (CALIFORNIA) GENERAL OSTEOPATHIC CLINIC

A general osteopathic clinic has been opened at the Laughlin Hospital, Pomona, California, it is announced, under the auspices of Drs. Charles E. Clark, Frank H. Dooley, Harry T. Laughlin and Cordelia M. Richmond. The clinic will provide osteopathic treatment for the public at a low cost, and will be maintained for the benefit of those who need service, but are unable to pay the ordinary fees. The clinic hours are from 8 to 10 Friday mornings, and 4 to 6 Friday afternoons. Different types of cases will be cared for under the direction of osteopathic physicians, specializing in different branches.

MARY ZACHARY OSTEOPATHIC CLINIC

Dr. Elizabeth L. Broach, Atlanta, Ga., reports that arrangements have been made to open a free clinic in the Wesley Memorial Church at Atlanta. It is to be named the Mary Zachary Osteopathic Clinic in honor of the granddaughter of Dr. J. W. Elliott, whom he has made a life member of the Junior division of the Osteopathic Women's Auxiliary International. The clinic space is provided by the parents of a little patient who is also a life member.

TACOMA, WASHINGTON

A children's osteopathic clinic is conducted in the Fidelity building, Tacoma, Washington, on Thursdays from 2 p. m. to 4 p. m. and on Saturdays from 10 a. m. to 4 p. m. A very small fee is charged to help take care of the expense, except in case of those unable to pay anything.

Dr. Charles B. Utterback is chief of staff, Dr. H. W. Stotenbur, assistant chief of staff, and Dr. J. Henry Hook, secretary and treasurer. Other osteopathic physicians contributing their services are Drs. H. V. Hoover, T. A. McKay, J. M. Ogle and H. A. Stotenbur.

BUREAU OF INDUSTRIAL AND INSTITUTIONAL SERVICE

E. A. WARD, Chairman
601 Second National Bank Bldg., Saginaw, Mich.

Mid-Year Report of Bureau of Industrial and Institutional Relations

At the beginning of this work I was somewhat handicapped by lack of a definite program. While we are guided in general by the purposes and functions of the A.O.A., yet the methods were lacking. My impression last year was that brief explanatory articles in the JOURNAL would bring definite results. Perhaps they did, but not to the point of satisfaction. Then I thought a committee of doctors outstanding in the profession for their work in athletics would stimulate interest in that direction. This committee was appointed without any real results as a national committee. Individually they did good work for athletics in their respective fields.

This year I sent each state president a letter asking him to appoint a chairman for industry and one for athletics. About twenty-two made their appointments. I gave each chairman a definite task in his state. The chairmen for athletics were requested to send in lists of colleges and schools with athletic teams, in their states, supplemented by lists of our doctors who could contact those schools. They were asked to send letters to all osteopathic physicians in their states, asking the latter to send educational literature on our work to the coach or physical director in each school. A form letter was sent each chairman to follow or write something similar. This letter was praised by some and criticised by others. About December 1, I wrote to all state chairmen to send me a summary of the results accomplished in athletics. The response has been very gratifying on the whole, and I believe the results will grow as time goes on.

It seems to me that this athletic work can be hooked up with student recruiting activities and bring forth very tangible results. Many of our people became interested in osteopathy in their high school football days while being attended by an osteopathic physician.

Educational material is seriously needed to promote this branch of this bureau and I hope the executive council will give its approval to any reasonable expenditure that will facilitate this valuable endeavor.

It has been suggested that a textbook be written on the care of injured athletes from the osteopathic viewpoint. I believe this is now before the committee on publications and when it is issued it will help stimulate our interest in this worth-while subject.

Among the state chairmen for industry I tried to stimulate an effort to get appointments as insurance examiners. I sent a letter written by Dr. Hulburt and myself to several insurance companies but the results so far have been negative. I recently mailed each of the chairmen a copy of the new industrial report blank with a letter explaining its purpose and a request for them to get a supply

and send to each state member. This letter also requested a report of members doing industrial work and to cite any exceptional cases of outstanding merit.

The Motor Wheel Corporation, Lansing, Michigan, recently decided to send all of its injuries of a certain type to our doctors.

I have had many requests on how to get started in industrial work and have written letters and sent the new literature we have for that purpose.

I will leave the explanation of the purpose of the industrial report blank to Dr. Purdy, who designed it. I am sure it will bring the necessary statistics that we need so badly to get started in the field of industrial medicine.

My reports from state chairmen on progress in industrial service are not yet complete so I will omit that here, but I am very happy to mention some outstanding examples of our progress in athletics.

FLORIDA

Last year articles were carried by the Associated Press and in many papers in the United States about Drs. C. B. and R. B. Ferguson taking care of W. L. (Young) Stribling, and during the months of April and May Dr. C. B. Ferguson was with the Brooklyn baseball team as their physician. Young Stribling is a contender for the heavyweight championship.

Dr. L. E. Gingerich of Miami has been the team physician for the Miami high school and it is the first championship team they have ever had. December 14 they played a post-season game with the undefeated team from Charlotte, North Carolina, high school and defeated them 12 to 7. By this victory they won the Dixie grid title. Dr. Gingerich has been very successful and has had very few men out of the game at any time.

Dr. Gilbert White is the athletic business manager for the University of Miami and has been more successful than any man they have ever had. Dr. White has had full charge of all business pertaining to athletics in the University and has handled them well.

Dr. Bernard Harter of Gainesville, Florida, has been team physician to the University of Florida.

Dr. G. C. Bartholomew is starting out on his seventh year as team physician to the athletic teams of Putnam high school in Palatka, Florida. An enviable record has been made by the teams under the osteopathic care of this physician. The bench time, or time the players were forced to sit on the bench from injuries, has been cut at least 80%. Taking care of the injuries osteopathically as soon as the injury is incurred is the secret of the amazing record.

Putnam high school girls' basketball teams were state champions for three years during this time, losing one game the fourth year and repeating the clear record the fifth year but no championship was allowed to be played by the high school ruling board of the state.

The city team girls' basketball champions of Florida and Georgia were voted the most sportsmanlike team at the national championship tournament in Wichita, Kansas, last year. This team had held the state championship for four years.

The high school baseball team was runner-up for state championship in baseball two years in succession, the team defeating them both times being the winner of the tournament. This past year, 1929, this team was victorious and is at present the high school champion team. The team presented the physician with a gold baseball with the following inscription: "Dr. G. C. Bartholomew, Team Physician, P. H. S. Champions, 1929."

The football teams have been more than successful, winning conference championship two years. The boys' basketball work has not been as great as the girls' teams but they are always near the top in the conference rating.

In Tampa, Florida, Dr. M. G. Hunter has had something to do with teams every year since 1921, and part of the time for two schools at the same time. In 1926 his team rated as eastern football champs, beating New Rochelle, N. Y., champs of Greater N. Y., in a post season game at Tampa.

In 1927 his high school was divided and then he had both teams up until this year. This year he has had only Plant high school, the other high school not having anyone regularly. His relations at Plant high school are as fine as can be imagined. This year they partitioned off part of the dressing room as a place for his department. Next year it will be fixed with a permanent partition, lights, and as rapidly as possible they will acquire therapeutic equipment until they have a real training room fitted up.

He has attended, as physician, all of the games with the exception of one out of town. During games he has been accorded full authority in all medical matters, his word in regard to injuries and players condition being taken as final. The officials have come to know him and in cases where the visiting team had no physician the officials would call for him if needed. A year ago they organized the Hillsborough High School Alumni Association, and he was appointed chairman of the sports committee

KENTUCKY

Drs. Carl J. and A. B. Johnson of Louisville have been rendering service for the past five years to the Louisville Male high school, St. Xavier's high school, the University of Louisville, the Kentucky Military Institute, the Templars, an independent team, and I am informed that next year they will get the Bonnycastle independent team.

During the football season they have given about three hundred office treatments to members of the different teams. Dr. L. A. Anderson, one of their associates, has taken care of the first aid at the games for the male high school.

Their services will run on through the basketball, baseball and track seasons as in the past.

They are of the firm opinion that this is one way of getting the osteopathic concept across to a lot of people, and every year they average five hundred treatments to these athletes. Naturally their relatives and friends hear about it as the boys get back in the game much quicker than they would were they left alone or under the ordinary medical care. They speak of it often and appreciate it.

MINNESOTA

Dr. A. E. Allen, Minneapolis, cares for the athletes in all the high schools in Minneapolis, Augsburg College in Minneapolis, and St. Thomas College in St. Paul. Dr. Walter Hagmann of St. Paul takes care of many of the high school athletes.

Dr. Robert H. Clark takes care of the athletes in the Northfield, Minnesota, high school and in St. Olaf College. Dr. Walter K. Foley of Minneapolis takes care of the Minneapolis professional hockey team.

PENNSYLVANIA

Dr. Charles D. Farrow has been interested in athletics and athletes since high school days, where he made his letter, later earning his letter at Ohio Northern University where he graduated in 1920.

After locating in Erie in 1927 he introduced osteopathy to the athletes of one prep school and one high school. The second year the work was limited to two high schools. This season he has been the physician to the two major high schools of his city, and one suburban high school has sent in many injured who have been restored to the game through osteopathy.

He has had plenty of opposition from the so-called "regular" practitioners and it is a wonderful feeling that comes only through this work when an injured athlete will refuse the services of one who tries to force his attention upon him and will ask that he be carried from the field so that he may have the services of an osteopathic physician.

COLORADO

Dr. R. E. Giehm, Boulder, has been employed as trainer for all athletic teams at the University of Colorado. Every day from 3 to 6 o'clock, he is with the men, giving them a half hour exercise before practice begins. Dr. Giehm is regularly employed by the Associated Students of the University of Colorado, which organization has charge of all athletics, musical and dramatic clubs, etc.

MISSOURI

The osteopathic student who has been coaching the Kirksville high school athletic squads, graduated last June. His place has been taken by Fred R. Lewis, a student from Muskegon, Michigan, who has had nine years' experience as a high school coach and teacher of physical education. It is reported that during eight years' experience coaching the Muskegon high school football team his team lost only three games. He has been a student of Coach Bob Zuppke of the University of Illinois.

Dr. Glenn E. Darrow in Buckner, a little town of not more than 750 people, is putting osteopathy over. He has

been there since September and is assistant coach and trainer for all athletics of his high school.

OHIO

Dr. H. H. Rouzer, Marion, is serving again this year as physician for the Harding high school football squad.

Dr. M. A. Prudden is school physician for the Fostoria schools on a salary from the board.

OKLAHOMA

Dr. A. F. Rowson, in Okmulgee, is official physician for the high school football squad of that city. Dr. Rowson is reported to have graduated from the Central high school at Houston with nine letters in athletics, all made in football, basketball and track. In 1917, he made the state record in the Texas Interscholastic Meet in the 100 and the 220 yard dashes. Later in the Texas Agricultural School, he made his letters in freshman basketball and football, and then played in the United States Navy Football Team in 1918 and the Navy Basketball Team in 1919, while stationed at Goat Island Training Station. After leaving the service, he served as assistant coach at Allen Academy, Bryan, Texas. He coached the three major sports there. He played still later on the football team of Texas Christian University, champion team of the Texas Intercollegiate Athletic Association, and was named All-southwestern Halfback. Three years later, he was again named All-southwestern Halfback, this time for the Southern Methodist University of Dallas, where he played both football and basketball. He played on the teams of the Kansas City College of Osteopathy and Surgery and the Kirksville College of Osteopathy and Surgery, and served as physician and trainer for the Kirksville College for two seasons.

This is the doctor's third year with the Okmulgee high school.

Dr. John Hade of Grain Valley, Missouri, is assistant coach of the High School there.

NEBRASKA

Dr. Bruce L. Ross, Central City, has been the physician to the Nebraska State Central College Football team for the past four years.

TEXAS

Copies of the following report about Dr. E. H. Mann and the letter from Midland have been mailed to all members of the profession in Texas by Dr. S. L. Scothorn to encourage more interest in athletics.

Dr. E. H. Mann has been the physician for the Amarillo high school for the past two years and has made a success, meeting all of the players. Last year he gave 101 osteopathic treatments and this year gave 116 besides the numerous bandages he applied. For this he has been receiving half price of the regular office visit. The coaches there seem to appreciate the treatment he gives the boys and he put several back in the game who could not have gone back had it not been for the osteopathic treatment.

From Midland Reporter Telegram, December 2, 1929.—The Midland Bulldogs have never been so well equipped and cared for. Coach Barry has been helped in the latter phase by two of the best doctors in this section, Drs. Wright and Ellinger. They have made untold sacrifice for the football team. Every evening after practice you will find their office swarmed with charleyhorses, sprained backs, sore necks, and twisted ankles.

Before every game one of the doctors goes down in the locker room taping ankles, padding sore shoulders and making it possible for the injured men to participate in the game safely.

At the game one of the doctors is always on the side line to take care of the men injured during the game. They have not missed a game, not even when we played away from home. They are vitally interested in every game we play and we cannot express our thanks in words.

LETTER FROM L. K. BARRY TO DR. SCOTHORN

Dear Sir:

Your recent letter to Drs. Wright and Ellinger has been referred to me for a statement.

Dr. Wright and Dr. Ellinger donated their services as physicians to the Midland high school football team during the season just closed. As a result of the generosity and skill of these two doctors, our team was as well taken care of as any high school team in Texas.

At least one of the doctors was present at every practice and at every game. In addition to taping ankles, working on charleyhorses, sprains, and other injuries, before and during each practice and game, these doctors worked on an average of about a dozen boys in their office each evening.

A team so inexperienced, so light, and so young as ours would not have been physically capable of winning the district championship had its injured players not been so well taken care of. The effect of this excellent care on the morale of the team, as well as on its physical condition, was no small factor in our success.

Had the school been charged for the professional services rendered by Drs. Wright and Ellinger at the office alone, the bill would surely have come to several hundred dollars.

I am convinced that osteopaths are not only the best physicians for athletic teams but that they are the only men thoroughly qualified to do this work.

Sincerely yours,

(Signed) L. K. BARRY,
Coach and Director of Athletics, Midland High School.

MICHIGAN

Dr. R. G. Norton who played on the Arthur Hill high school team, Saginaw, in his prep days and later was captain of the varsity football team at Kirksville College of Osteopathy and Surgery, is now the physician for the Birmingham, Michigan, high school football team.

Drs. R. V. Gladieux and Robert Lustig of Grand Rapids are taking care of the athletes in two of the high schools in that city.

NORTH CAROLINA

Dr. Ray Sermon is employed by the Athletic Department of State College, Raleigh, N. C., and gives his whole time to that work.

CONCLUSION

It is evident from these reports and others that have come to my attention that the profession is rapidly progressing in the field of institutional service, particularly in acting as physicians to athletic teams.

To encourage this valuable service I make these recommendations:

I. That we sponsor the publication of a textbook on the osteopathic care of injured athletes and sell it at cost to A. O. A. members who are interested in athletics;

II. That we establish a section devoted to the study of osteopathic supervision of athletic teams in order to give complete recognition to this valuable phase of osteopathic science, this section to start functioning at the Philadelphia convention;

III. That we create the proper organization machinery to closely coördinate this section with student-recruiting activities.

TEXAS REPORT ON ATHLETIC WORK

TOWN	DOCTORS	SCHOOLS
San Antonio	Robert Kelley	St. Mary's University
Wichita Falls	T. R. Krohn	Wichita Falls Junior College and Wichita High School
Cleburne	W. S. Sherard	Cleburne High School
	A. D. Ray	Y. M. C. A. Athletes
Houston	C. Homer Wilson formerly had	Local High School Rice Institute
Amarillo	E. H. Mann	Amarillo High School
Longview	T. J. Hagan	Longview High School
Dallas	R. N. Blackwell	Athletic Director, Southern Methodist University
	Sam L. Scothorn	Highland Park High School
Ft. Worth	Russell & Russell	Texas Christian University
Temple	H. B. Mason	Temple High School
	(Banquets team each year)	
Abilene	John Hammond	McMurry College
Georgetown	Reginald Platt	Georgetown High School
Waco	V. A. Kelly	Baylor University, and Waco High School
Mineral Wells	J. C. Brown	Mineral Wells High School
Midland	Wright & Ellinger	Midland High School

INDUSTRIAL

Dr. J. L. Ingle of La Grande, Oregon, is an approved physician for the Bowman Hicks Lumber Company and has been for the past eight years.

Osteopathic physicians in Oregon work for the State Industrial accident commission under the same terms as do M. D.'s and without discrimination.

The injured employees specify the doctor they want when they ask for a "ticket" and then the doctor sends in his bill for services rendered. It has been a very satisfactory arrangement. The fees are low but are always cash each month. They get $2.50 for house calls and $1 for office treatments except the first office call which is $1.50. For accident cases the State rate is $3 for first call, office or house, and $2.50 for further house calls and $1.50 for further office calls.

E. A. WARD.

BUREAU OF PUBLIC HEALTH AND EDUCATION

ARTHUR E. ALLEN, Chairman
Metropolitan Bank Bldg.
Minneapolis, Minn.

The report for this month is short for two reasons. The first one is that the new work on Health Columns is just beginning to show results. We are receiving some very enthusiastic responses and feel that at last some work has been started which promises to be an opening in the field of public health work. The second reason, and the most important one is that I wish to stress the following point:

As soon as contact has been made with an editor who is willing to publish a health column or has said that he wishes to see some of these articles, please communicate immediately with Dr. C. J. Gaddis of the Central office, and make all arrangements with him for the length article desired, how often they are to be sent, etc.

Much time can be saved by this method rather than by handling it through my office. Unless the Central office is informed in detail exactly what is wished they will not be able to co-operate sufficiently well to make this effort a success. They must know exactly what is wanted.

Mid-Year Report to Dr. Purdy

Returning to the office on the first of September, of this year, this bureau worked out a plan for placing health columns in various newspapers throughout the country. Arrangements were completed with the Central office to furnish material for these columns as well as to send out letters to the state publicity chairmen or state presidents of all state and dominion societies. Through some mistake at the Central office the wrong material was sent to several states and fourteen states reported not to have received a communication of any kind relative to this work.

As a result practically nothing has been accomplished by this Bureau to date. An entirely new set of letters have been sent to all the associations. Minnesota has already placed one health column and has more in view. Louisiana, Florida and Montana have sent in enthusiastic replies and are going to show results shortly. Success of this type of work depends entirely on the willingness of the state associations to try to accomplish something. I am sure a great deal can be done through this line of work but it will probably take several years of constant hammering to get all the states working.

ARTHUR E. ALLEN.

OSTEOPATHIC EXHIBITS

J. IVAN DUFUR, Chairman
Ambler, Pa.

Mid-Year Report to Dr. Purdy

Most of the activities of my committee consist of correspondence, irregular and spasmodic, dependent mostly upon hunches, many of which turn out to be blind leads. Just now I am in correspondence with the executors of the estates of two of our early graduates, one of which has already yielded a rich haul of early photographs, papers, clippings, etc., illustrative of the osteopathy and its who's who of the early nineties. I am hoping for more from this source and have had the promise of a few valuable additions from the executor of the other estate. My work partakes somewhat of that of a detective. The scarcity of materials is almost unbelievable. I have been considering the practicality of making a series of slides of early osteopathiona for use at the coming convention.

It may help to enthuse the youngsters and root out something worth while from the early D.O.'s.

Now as to the usefulness of our little exhibit. During the past fiscal year 868,952 visitors entered the building in which it is housed. We have no way of knowing what percentage of these visitors paused before our case through interest in the subject matter, but even a small percentage is a great number.

In my annual report I shall give you a detailed account of accessions. Meantime I am trying to get hold of an old leather swing and rib fixer and am going to the patent office to find out if Dr. Still patented his early inventions and if so, to get any patent papers for the museum.

J. IVAN DUFUR.

LEGAL AND LEGISLATIVE

ASA WILLARD, Legislative Advisor in State Affairs
Missoula, Montana

(Address legislative inquiries and data to Dr. Ray G. Hulburt, Director of Information and Statistics, 844 Rush St., Chicago.)

OSTEOPATHIC HEALTH OFFICERS

Please send information to the Central office regarding all osteopathic physicians who have served as public health officers, giving the office held, the dates, how the appointments were made and under what circumstances and such other information as may be available.

PHYSIOTHERAPY IN CONNECTICUT

The office of the Attorney-general of Connecticut has recently issued two rulings regarding the qualifications necessary for those administering therapeutic treatment by means of electrical apparatus. On November 6, it was ruled that chiropractors cannot avail themselves of such methods of treatment as thermotherapy, phototherapy, chromotherapy, vibrotherapy and electrotherapy; but they may apply corrective and orthopedic gymnastics, physiotherapy and concussion insofar as these may be necessarily incidental to spinal adjustment by manipulation.

On November 13, it was ruled "that the application of electrical methods to the cure or alleviation of sickness and disease may be undertaken only by practitioners of medicine, surgery, osteopathy or naturopathy."

MICHIGAN COMPENSATION BOARD

The Commission on Hearing and Review of the Department of Labor and Industry of Michigan, on December 4, rendered an opinion in the case of Kennedy McBone vs. Briggs Manufacturing Company and the Royal Indemnity Company, in which an important part of the matter at issue had to do with the right of an osteopathic physician to collect for treatment under workmen's compensation insurance. The opinion said in part:

"Defendants deny their liability for the charges in this case because they alleged the services of an osteopathic physician are not medical, surgical and hospital services within the meaning of said section 4 of Part II of the Compensation Law. We are not agreed with this contention. The practice of osteopathy is recognized in this state and there is created by law a State Board of Osteopathic Registration and Examination with power to license persons to treat diseases of the human body by the system, method or science of osteopathy. Persons licensed under this statute have just as much right to practice their profession as physicians and surgeons under the medical act, dentists, or lawyers under their respective laws. We believe that the legislature in passing said section 4 of Part II of the Workmen's Compensation Law providing for medical, surgical and hospital services and medicines to injured employes did not intend to limit such services to any particular body of practitioners. If it were intended to limit such service to only practitioners licensed to practice under the act for registration in medicine, it would have been a very easy matter to say so. The term 'medical' is sufficiently broad to include practitioners of osteopathy, which is a system recognized by law for the treating of diseases of the human body. The science of treating diseases of the human body has developed in many directions and while one body of practitioners may be interested in confining such practice

to their system or method, the law recognizes no such monopoly. We have no hesitation in saying that the service of an osteopathic physician is medical service within the meaning of this section of the Law. See Towers vs. Gliders & Levin, 101 Conn. 169, 125 Atl. 366, involving a construction of the Connecticut statute which is similar to our own, cited by Commissioner Jacobs in the opinion of the Commission in the case of Marsden vs. Ora E. Williams and Pennsylvania Surety Company, decided November 27, 1929, No. 2301."

The opinion last cited was rendered by the same commission. A bill for $60 for osteopathic treatment by Dr. R. Beverly Wilson, Detroit, was allowed. Plaintiff was suffering from broken arches due to jumping on a scaffold, and the commission held that inasmuch as the treatment received resulted in curing his disability and the physician rendering treatment was well qualified from a medical and surgical standpoint, there was no reason why the bill should not be allowed.

MISSOURI HOSPITAL CASE LOST

The case has been lost in the Court of Common Pleas wherein the osteopathic physicians at Hannibal, Missouri, sought to make the Levering Hospital an open institution (JOUR. AM. OSTEO. ASSN., Nov. 1928, p. 202, Apr. 1929, p. 615).

They claimed that the hospital was a gift to the city on condition that it remain forever an open institution, and that it admitted osteopathic physicians and cared for their patients up until 1928, when a rule was adopted which resulted in their patients being barred and in the loss of the rights to x-ray and other laboratory facilities.

The suit was dismissed in the Hannibal Court of Common Pleas on December 16, on the ground that it was not properly instituted, in that it was not brought by the Attorney-general of Missouri, and he was not made a party to the suit, and on the further grounds that the plaintiffs themselves did not come within the purview of the deed in its description of the beneficiaries of the trust.

The case was appealed to the Missouri Supreme Court by the osteopathic physicians after a motion for a new trial had been denied. The following paragraphs are abstracted from the opinion of the judge:

> This is a suit in equity brought by the plaintiffs as citizens, taxpayers, and osteopathic physicians against the board of control of Levering hospital and other defendants, seeking to enjoin the enforcement of a rule to exclude osteopathic physicians from treating patients received in the hospital.
>
> The hospital was established thirty years ago and shortly thereafter given to the city for a public hospital.
>
> The gifts are conceded to be public charities. It should be noted that the indefiniteness of the number of persons to be benefited is the distinguishing feature of public charities and such charities are in the form of trusts.
>
> The deed invests the grantee, the city, with naked legal title and merely as trustee to hold the same for the use of the beneficiaries. The only beneficiaries are such sick and injured of the general public as may be admitted to the hospital by the board of control as provided in the deed.
>
> The city has no powers whatsoever with respect to the management and control of the hospital. The councilmen and the mayor are neither necessary nor proper parties to this proceeding.
>
> The all-inclusive powers of the board are to be exercised in the board's discretion, subject to the one and only limitation "That the conduct and management shall forever be free from all political, religious, social or other partisan or sectarian bias, prejudice, preference or influence."
>
> The defendants claim that the mandamus was a permissible and the only remedy for the plaintiff to invoke. This position is not tenable, because. (1) The members of the board are in no sense public officers, municipal or otherwise, and (2) mandamus can be invoked to enforce a clear legal right only, and not an equitable right. The city as a corporate entity is the only party in legal interest here. If the plaintiffs have any right to sue, it is not a legal right and it must, therefore, have its foundation in the principles of equity, and by the bringing of this action, they take the position that they have no legal interest in the premises, but do have rights which are enforcible in equity.
>
> A trust deed, as here, is triple in its nature and purpose. The grantor, himself invested with the whole title, legal and equitable, divided the title when he executed the deed. He invested the legal title in the city, and invested the equitable or beneficial use in an indefinite number of persons, sick and injured, then not ascertainable, but later to be ascertained and admitted to the hospital by the board. It is a matter of common knowledge, and of course, it was known to Mr. Levering and the city, that professional services of physicians would be necessarily incident to the treatment of such sick persons as might be received in the hospital.
>
> It is upon this incidental necessity that the plaintiffs seemed to predict their alleged rights of action here. In other words, the plaintiffs do not claim to derive any right through sick and injured persons, but claim that they as physicians come within the intendment and purview of that clause in the deed which undertakes to designate the beneficiaries of the gift; that if plaintiffs have patients needing hospitalization, the physicians themselves as such beneficiaries, have the right to treat their patients in the hospital and to have them received therein for that purpose.
>
> The plaintiffs further claim that the rule passed by the board, excluding osteopathic physicians, is in violation of their rights under the deed and in violation of the clause which requires the management to be free from partisan preference or influence.
>
> The evidence tends to show that the adoption of the rule was induced by partisan influence. It may be conceded that the physicians who induced the adoption of the rule pursuant to the request of the American Medical Association, made in aid of the affiliated American Hospital Association, were actuated by altruistic motives as well. Nevertheless the adoption of rule was accomplished by the threat of the proponents thereof, to withdraw or reduce their patronage of the hospital.
>
> Inasmuch as less than two per cent of the annual receipts of the hospital was derived from the patients of osteopathic physicians, the board adopted the rule primarily to avoid financial loss to the hospital and secondarily to obtain a higher rating by the American Hospital Association. The mixed motives cannot be separated and each permeates the whole.
>
> The question of whether the enforcement of the board's rule is in violation of those provisions of the deed which relate to management is not now, for basic reasons, properly for determination. The rule has to do with a detail of the administration of the trust.
>
> Plaintiffs assert that under the public policy of the state osteopathic physicians and doctors of medicine stand upon an equality in their rights to practice their respective professions. The statement is quite true, but it is of very limited application here. There is no statute which seeks to impress a public policy upon any hospital, the management of which has been dedicated by the donor thereof in the instrument of dedication.
>
> Plaintiffs make an effort to inject a constitutional question into the case. The "due process" clause of the federal constitution and "liberty" clause of the state bill of rights apply to legislative acts of the state and acts of its officers done thereunder and the legislative acts of its subsidiary municipal corporations and proceedings thereunder. The members of the board were not public officers and were in no sense officers of the city of Hannibal.
>
> The question is raised whether the plaintiffs have a right to maintain this action in equity. The only beneficiaries of the trust are sick and injured persons. It is too plain for argument that by no stretching of the terms "sick and injured" can they be made to include citizens, taxpayers and physicians generally. All such persons are strangers to the deed and therefore cannot prosecute a bill in equity in regard to the administration of the trust.
>
> If property devoted to a public charity is endangered or faultily administered, the attorney general, as such, may institute the proper proceedings to protect the estate.
>
> The fundamental and determining question in the case is that of jurisdiction. Courts of equity have

plenary and exclusive jurisdiction over the subject of charitable trusts.

COMPENSATION RULING IN MONTANA

It is reported that the State Board of Compensation in Montana recently answered a question from an employing company concerning the right of various types of healers to receive pay from the Board. Physicians and surgeons of the so-called "regular" school, and of osteopathy, are the only ones entitled to such compensation, according to the ruling, although both chiropractors and Christian Scientists may and do legally practice healing in the state.

FOCAL INFECTION AND SACRO-ILIAC STRAIN IN UTAH

The Supreme Court of Utah on March 7, in the case of the Graybar Electric Company, Inc., vs. the Industrial Commission of Utah, decided that preëxisting disease or disturbed physical condition when aggravated by an accident, is compensable.

The evidence indicated that a workman sustained injury through strain in lifting, resulting in an incomplete traumatic hernia and sacro-iliac strain. Evidence was presented that the strain was the result of the injury plus a preëxisting infection from a nasal condition.

The employers insisted that a distinction must be made between injury and an accident. They said:

"The pain and the manner of it, the time of it and the occurrence of it, however sudden and severe it may have been, was the man's physical condition. It was not caused by an accident and if it can be termed an injury it was not by reason of an accident."

The court held, however, that, "other . . . conditions being present, a preëxisting disease or other disturbed condition of the physical structure of the body, when aggravated or lighted up by an accident, is compensable under the act. . . . The real point, however, is whether or not the strain from lifting which, it is alleged, caused or lighted up the sacro-iliac condition, was an accident. . . . A strain or overexertion may cause accidental injury for which compensation will be allowed, where the injury happened suddenly, undesignedly, and unexpectedly and at a definite time and place."

TEACHERS' HEALTH CERTIFICATES IN WASHINGTON

The office of the attorney-general of Washington on October 1, ruled that osteopathic physicians are not entitled to make physical examination of school teachers for communicable diseases, or to sign health certificates on behalf of teachers or janitors in the public schools. Reference was made to an opinion dated January 29, 1925, holding that a drugless physician is not entitled to issue a teacher's health certificate.

The decision as it affects osteopathic physicians, is in line with a number of opinions previously rendered by the same office. (Jour. Am. Osteo. Assn., Mar., 1929, p. 535, Apr., 1929, p. 615, June, 1929, p. 788, July, 1929, p. 868.)

Mid-Year Report to Dr. Purdy

The work of this advisor has consisted largely of advice to individuals of the profession who are on State Legislative committees involved in hospital controversies, or considering various legal or professional activities incident to legislative rights, or the consideration of changes in law.

In hospital contentions the advice is and always has been, from the present state advisor, to go to the court of public opinion, rather than the law, for redress. In such policy, whether we win or lose, we profit by the aroused public sentiment in our behalf. The formulation of a legislative program in Illinois is a matter of present importance.

Dr. Hulburt at the Central office, as he becomes more familiar with the various angles of these inquiries and the legal considerations, is more and more intelligently and helpfully taking care of many inquiries which formerly required letters from the advisor. That is as it should be, as it has been the desire and aim since we launched our definite professional policy at Chicago some ten years ago to develop that service in the largest measure at headquarters.

Logically, we should have our attorney for legal and legislative matters in the states, and for legal advice as to general association matters at Chicago. It is consistent also to have some legal advisor at Washington to look after matters before Congress which affect us, or before the U. S. Governmental bureaus and departments. Above, the words "for *legal* advice," were used. For that we want available an attorney, and for that alone. We need no wet nurse. No one to outline our policies, and to tell us what is best for us as to policies. If we can't work that out ourselves, if we don't know from within ourselves where we're going or where we want to go, we don't deserve to exist as a profession.

Lawyers are not omniscient, contrary to what some of our folks seem to feel. With unlimited funds we couldn't hire enough attorneys to accomplish our desires, if we just sit back and watch the attempt.

As a profession, we must individually and collectively keep aroused and informed. This is one of our problems from the legislative angle—the presentation continuously, through our journals and meetings, of what is to our advantage and in harmony with our policy and why it is, and by the same reasoning, showing up what is detrimental and should be avoided. From the legislative angle we have sought to get into our journals, and have gotten into them, informative material. The Legal and Legislative column in the A.O.A. Journal is kept going. Matter has appeared in the Forum, also in other journals. The legislative advisor has now in hand this year's data, as to the number of students in our colleges from each state, and this is ready for an early issue of the Forum. It has distinctive legislative bearing. Certainly there is nothing in the data to warrant establishing student-reducing state enactments such as two years college preliminary. A poll of our deans and college presidents gets the unanimous expression that such would be "professional suicide" at this time. In this connection and in connection with what was said immediately preceding, as to the profession and legislation, for our organization journals to exalt the accomplishment of legislation, establishing these "professional suicide" requirements and allopathically-dominated regulation, is indeed an error—an error that nullifies efforts to hold up the profession's fighting spirit and willingness to sacrifice to maintain our professional integrity.

Reports from each state having adopted such, show that the effect of the Basic Science laws is to markedly hold down the osteopathic population. It cuts less figure in Wisconsin, as they had a composite board. The advisor was working with Mr. Herring on a bill to use as a substitute for the Basic Science bill, where we were crowded in a Basic Science fight. It would require no examinations, but to have credentials of each applicant passed upon by a lay board—a preliminary instead of a Basic Science board. As Mr. Herring is familiar with what we are seeking, and has done some work, I should like permission to have him finish the work with me.

Students graduating in January should be mailed legislative literature to keep them understandingly lined up with the profession in legislative matters.

ASA WILLARD.

INFORMATION AND STATISTICS

RAY G. HULBURT, Director
Chicago

The Strange Hold of Medical Publicity

PHILANTHROPISTS' MONEY TO MEDICAL ENTERPRISES

The hold which organized drug medicine has on organized wealth, organized religion and organized government is making itself apparent day by day.

The $6,000,000 residuary estate of the late Conrad Hubert was recently up for long and serious study by outstanding representatives of the Protestant, the Catholic and the Jewish religions—former President Calvin Coolidge, former Governor Alfred E. Smith and Julius Rosenwald, noted philanthropist.

More than 500 institutions were investigated and thirty-three were selected as the worthiest to share in the funds. The bequests were divided into three classifications. The sum of $4,350,000 was to be divided immediately among fifteen beneficiaries, and of this sum, $2,375,000 went to enterprises directly having to do with physical or mental health or healing—all of course under orthodox auspices—as follows:

The St. Vincent's hospital of the City of New York, $500,000; Provident hospital of Chicago, $500,000; Beekman Street hospital in the City of New York, $500,000; the American National Red Cross, $375,000; Jewish Mental

Health Society, $250,000; the National Committee for Mental Hygiene, $250,000.

The second classification took up institutions which would benefit from the distribution of the first $1,000,000 realized from the further liquidation of the estate. Of this $1,000,000, divided among eight institutions, one-half went to those having to do with health or healing, as follows:

Henry Street Settlement in the City of New York, $100,000; Beth Israel Hospital Association in the City of New York, $200,000; Howard University, Washington, D. C., $200,000 for the building of the medical school.

This is a reminder of the statements recently published that organized drug medicine proposes to advance the education "especially of the philanthropists in the economic and scientific problems before us" by means of paid advertising.

If one-half of such funds now go to the advancement of things sponsored by organized drug medicine one wonders what the proportion will be after the proposed advertising campaign has been running for a while.

The *Journal of the American Medical Association* for January 11 reports that the Julius Rosenwald Fund appropriated $4,000,000 of its capital assets during 1929 for philanthropic purposes. Out of this $4,000,000 more than $550,000 was appropriated for enterprises chiefly under the direction of organized drug medicine as follows:

University of Chicago Clinics, $250,000; Massachusetts General Hospital, $150,000; Committee on the Cost of Medical Care, $40,000; Howard University for fellowships for advanced study by negro physicians, nurses and teachers, $50,000; Canadian Mental Hygiene, $62,500; and appropriations for negro hospitals and colored public health nurses in sixteen counties of five of the southern states.

One hundred thousand dollars was made available from this same fund, according to an Associated Press dispatch from Washington, about November 19, to conduct a survey of the duties of the Federal Government toward education. This study, of course, will be made under the general direction of Ray Lyman Wilbur, now Secretary of the Interior, but formerly president of the American Medical Association. It can hardly be expected to lessen the grip of organized drug medicine on organized American education.

PRESIDENT HOOVER'S CONFERENCES AND COMMISSIONS

President Hoover's White House Conference on Child Health and Protection has been mentioned a number of times in these columns (JOUR. AM. OSTEO. ASSN., Aug., 1929, p. 933; Sept., 1929, p. 26; Nov., 1929, p. 120). The influence which this conference and its preliminary organization will exert is indicated by what happened at a meeting of about 175 representatives of official, civil and charitable organizations who attended the organization meeting of the West Virginia Child Health Council at Morgantown, November 26. Harry E. Barnard, Ph.D., director of President Hoover's conference, was present and pointed out the need for organizing Child Health Councils to assist in forwarding the plans for the White House Conference.

"The program for the year comprises a state-wide publicity campaign for the physical examination and correction of (remediable) defects of children of pre-school age and for their immunization against diphtheria and smallpox, and for the immunization of school children against typhoid." (*Jour. Am. Med. Assn.*, Dec. 18, 1929, p. 2037.)

Another manifestation of the spreading scope of the President's Child Health conference came to light about December 16, when George W. Wickersham, chairman of the President's Law Observance and Enforcement Commission, and Ray Lyman Wilbur, M.D., Secretary of the Interior, announced that a nation-wide study of child crime is to be made, under the auspices of the Law Observance Commission and the Child Health organization. This study is to be made under the direction of Miriam Van Waters, Ph.D. Dr. Van Waters' work is said to tie into that of Judge Frederick P. Cabot of Boston, chairman of the Committee on Socially Handicapped—Delinquency of the White House Conference.

FOR MEDICAL CENSORSHIP OF THE AIR

Another example of the possibilities of governmental interference was brought forcibly before us when the Commissioner of Health of New York City urged the Federal Radio Commission to bar from all radio broadcasting stations those who talk on questionable health measures and devices.

It was natural for somebody to suggest at once—and the suggestion was made—that no health matter be allowed on the air, except what had been approved by health departments. One need not go into details as to the kind of censorship on natural health methods which would result if that suggestion were carried out.

State Boards

California

Two new members have been appointed on the state examining board, and three members re-appointed. Dr. Robert G. Lawson, San Francisco, succeeds Dr. W. W. Vanderburgh. Dr. Ernest G. Bashor, Los Angeles, succeeds Dr. Charles H. Spencer. Drs. A. V. Kalt, Pasadena, Henry F. Miles, Long Beach, and Lester R. Daniels, Sacramento, have been reappointed.

Florida

The next examination for Florida applicants will be held on February 20, 21 and 22. Headquarters Tuttle Hotel. All applications should be in two weeks before examination.

FRANCES TUTTLE, Secretary,
Tuttle Hotel, Miami, Florida.

Nebraska

Mrs. Clark Perkins, Lincoln, Director of the Bureau of Examining Boards, advises that the next osteopathic examination in Nebraska will be held at the State House, Lincoln, February 20 and 21. Applications must be on file at least fifteen days prior to the beginning of the examinations.

Pennsylvania

The Pennsylvania Board of Osteopathic Examiners will hold its next examination on February 3, 4, 5, and 6, 1930, at the Department of Public Instruction, State Capital, Harrisburg, Pennsylvania.

M. S. HOUSE, Secretary,
20 South 13th St., Harrisburg, Pa.

West Virginia

STATE BOARD OF OSTEOPATHY LOCATING IN WEST VIRGINIA

Most of West Virginia's larger cities have from one to five or six osteopathic physicians. Wheeling, Huntington, Charleston, Parkersburg, Clarksburg, Bluefield, Fairmont, Morgantown, Grafton and Martinsburg—any of these cities are possibilities. No one could say a city of 60,000 people with a half dozen osteopathic physicians is overcrowded. For those who like the larger cities, we recommend the investigation of any or all of these named.

There are many small cities throughout our State without an osteopathic physician. It is in the small city the physician can secure a practice in a short time. However, we do not recommend locating in any locality unless the doctor is satisfied to live there permanently. It is wise to look a location over; study the situation from all angles, before spending time and money in establishing a practice. If a man desires to practice in a large place eventually, it is best to locate there at the outset and persevere until he becomes established.

The following list of small cities in West Virginia have no osteopathic physicians at the present time:

Name	Population	Remarks
Kingwood	3000	County seat
Philippi	2000	County seat
Logan	7000	County seat
	Drawing population of 40,000	
Piedmont	4000	Eastern section
Spencer	4000	County seat, wealthy
Mannington	3900	Oil country
Sutton	3000	County seat
Gassaway	3000	Railroad shops
Richwood	8000	Lumber center
Montgomery	5000	Drawing population
Mullens	5000	25,000 drawing population
Welch	10,000	50,000 drawing population
Mt. Hope	3000	12,000 drawing population
Princeton	10,000	County seat

Salem	2500	15 miles from Clarksburg on main B. & O.—Eastern West line
Keyser	7000	County seat, preparatory school

The next meeting of the State Board will be held at the office of Dr. John H. Robinett, First National Bank Bldg., Huntington, W. Va., February 3 and 4, 1930. Application blanks may be secured by writing the secretary, Guy E. Morris, D.O., 541-542 Empire Bank Bldg., Clarksburg, W. Va.

Diagnosis and Treatment

DIABETES—ITS DIAGNOSIS AND TREATMENT

STANLEY G. BANDEEN, M.S., D.O.
Bandeen Hospital, Louisville, Ky.

ARTICLE XXI.

DIETARY TREATMENT—DIETS

In the previous chapters you have learned something of the carbohydrate, protein, fat, minerals and vitamins necessary for a healthful person, and the method of determining the amount of each food necessary for every diabetic. Each is a law unto itself.

The diabetic can eat every kind of food that a man or woman who is in training for athletic events (every kind of food does not mean the same amount), but not what the general American public likes—such as sugar, candies and pastries.

Prior to the discovery by Banting and Best of Toronto, Canada, and Bandeen of Louisville, Ky., of greatly improved methods of handling diabetes, a person had to have his food limited in amount to such a degree that he grew weak from being so thin and many such patients could not earn a livelihood. But with the modern methods of treatment we can keep even the severe diabetic strong enough to continue his usual work.

The onset of diabetes is slow and it is rational to correct the disturbed metabolic balance of the body slowly, always with the purpose in mind to restore pancreatic function rather than to dispel diabetic symptoms.

The impaired function of the pancreas should be kept in view at the very beginning of treatment. The islands of Langerhans should be spared by restrictions of carbohydrate and the acinus tissue by reduction of protein and fat. The external juice as well as the internal secretion is defective and treatment should be directed to meet both conditions.

The object of treatment in any disease is to normalize the body in both structure and physiological functioning.

The first thing we think of in diabetes is to make the urine sugar free and the blood sugar normal, because (1) the tendency of the human body is to be normal, therefore normal values are obviously the best; (2) the return of blood sugar to normal proves utilization of the food; (3) a high blood sugar causes degenerative changes in the kidneys, arteries and nervous system, and leads to the accumulation of acids which lower resistance to infection.

There are no set rules to follow because each individual is a separate law unto himself. Successful treatment can only be approximated after a complete examination including the chemical examination of the blood and urine, the functional test of the glands—especially of the thyroid, pancreas, liver and suprarenals. With this information we are now able to consider the carbohydrate, protein, fat and minerals for the patient concerned. One of the simplest procedures, as mentioned in the previous chapter, is to decrease the total quantity of the diet, irrespective of its quality, to such a point as will bring about a slight loss of weight. In some cases this is all that is necessary to free the urine from sugar. This is the explanation of the "oat cure," "wheat cure," "potato cure," and "milk cure" of the past. Those exclusive diets were under-nutritious and did not take into consideration the carbohydrate, fat and protein ratio, and there was no consideration of the mineral balance which is so necessary in diabetes. Impatience on the part of the doctor and patient defeats such a plan and the urine is first rendered sugar free by the omission of such carbohydrate foods from the diet as sugar, sweetened desserts, bread, and potato. While this treatment may work well in some cases, it leaves too much to chance to be successful. In many cases it may even be harmful because the decrease of so much carbohydrate from the diet without the proper reduction of fat may lead to acidosis, and acidosis is a serious handicap to a diabetic patient. The development of acidosis immediately transfers the individual, at least temporarily, from the mild to one of the severe types of the disease. It is for these reasons that the more detailed plan of reduction and maintenance diet is carbohydrate, protein and fat, as described in the previous chapter, is recommended.

The added work entailed upon both doctor and patient during these first few days of treatment is the foundation upon which years of usefulness and comfort can rest. For this purpose a number of the so-called test and maintenance diets have been arranged. The quantities of carbohydrates, protein and fat in these diets will seldom be prescribed exactly according to schedule.

The form in which the patient takes his carbohydrate, protein, and fat makes no difference theoretically, but it makes a great deal of difference practically. If more fat is desired in the diet one could simply increase the cream or the butter. When the carbohydrate is to be raised beyond the amount in the vegetables it is very easy to make a marked increase by adding a salad containing grated raw potatoes. Most diabetics can handle from five to ten times more carbohydrate as raw starch than in any other form. As a rule there is very little trouble in obtaining a sufficient amount of protein with our modern idea of the amount necessary for maintenance.

When a patient comes to the hospital for treatment he is kept on as near the same diet as possible until the examination is completed. When treatment is started the diet is figured for the particular individual according to his type and chemical needs, and blood chemical findings. With some of the more difficult cases it is necessary to take them through a series of test diets followed by a longer series of maintenance diets. It will be observed that the carbohydrate in the test diet is decreased about 50 per cent each day, the protein is decreased about 20 per cent each day, the second day of the test diet the fat has been reduced to zero. This rapid reduction in fat is to prevent a state of acidosis, which may occur with a rapid reduction of carbohydrate unless the fat is removed from the diet.

The following table is a general daily group arrangement for the test diets. The amount given represents the number of grams except in prepared foods such as shredded wheat, which are of definite weight.

TEST DIETS

	Wt. in gms.	Vegetable 5%	Orange	Shredded Wheat	Potato	Whole Wheat Bread	Fish	Skimmed Milk
No. 1	C-164 P-67 F-15 Cal-1060 — 300	300	1	240	40	180	480
No. 2	C-95 P-41 F-0 Cal-544 — 250	300	1	100		100	300
No. 3	C-54 P-22 F-0 Cal-304 — 200	300		50		50	200
No. 4	C-25 P-20 F-0 Cal-220 — 200	200				50	100
No. 5	C-22 P-4 F-0 Cal-104 — 200	100					

After taking the patient through the series of test diets it will be necessary to start on the series of maintenance diets. The following series taken as a group make up in general the method of increasing the carbohydrate, protein and fat. In many cases it may be necessary to use the amount of carbohydrate for the 6th day, the amount of protein for the 8th day, and the fat for the 10th day; or in some other case use the carbohydrate for the 9th day, protein for the 7th day and fat for the 2nd day. All of these variation diets must be determined by the result of chemical tests of the blood and urine.

MAINTENANCE DIETS

Day	Weight in Grams	Vegetable 3%	Orange	Steel-cut Oats	Shredded Wheat	Uneeda Biscuit	Potato	Bread	Grape-fruit	Egg	Cream 18%	Bacon	Butter	Fish
No. 1	C- 10 P- 11 F- 6 Cal- 138	300								1				
No. 2	C- 22 P- 13 F- 18 Cal- 302	300							175	1	60			
No. 3	C- 32 P- 24 F- 24 Cal- 440	300	100						125	2	60			
No. 4	C- 42 P- 29 F- 39 Cal- 635	300	200						100	2	60	30		
No. 5	C- 52 P- 32 F- 53 Cal- 813	300	200	15					100	2	60	30	15	
No. 6	C- 63 P- 43 F- 65 Cal- 1009	300	200	30					100	2	90	30	15	30
No. 7	C- 73 P- 51 F- 70 Cal- 1126	300	200	30					275	2	90	30	15	60
No. 8	C- 83 P- 60 F- 88 Cal- 1364	300	200	30		2			275	2	90	30	30	90
No. 9	C- 96 P- 63 F- 94 Cal- 1482	300	200	30	½	2			275	2	120	30	30	90
No. 10	C-107 P- 64 F- 94 Cal- 1530	300	200	30	1	2			275	2	120	30	30	90
No. 11	C-131 P- 76 F- 99 Cal- 1719	300	200	30	1	2	60	25	275	2	120	30	30	120
No. 12	C-155 P- 80 F- 99 Cal- 1831	300	200	30	1	2	120	50	275	2	120	30	30	120

After looking over the various days' menus found in the test diets and in the maintenance diets, naturally the question will be what foods and how much will I prepare to obtain the desired amount of carbohydrate, protein, fat, mineral, and vitamin balance?

The question of supplying the chemicals potassium, sodium, phosphorous, chlorine, and the vitamin B in the various foods is always kept in mind when arranging the individual meals. Due to the fact that every diabetic is a case unto himself it has never been possible for us to put two diabetics on the same meal.

Citrus fruit juice containing raw egg yolk is always to be served 30 minutes before the rest of the menu, especially if starches are included in the meal.

The following is a sample list of meals used in our hospital in the test diets, maintenance diets, and in correction of ketogenic type of acidosis found in diabetes:

BREAKFASTS

—1—	Gms.	C.H.O.	Protein	Fat	
2 bran muffins	0	0	6	6	
Butter	10	0	0	8.5	
1 poached egg		0	6	6	
Cereal coffee or Kaffee Hag		0			
Total		0	12	20.5	237

—2—					
1 soft boiled egg		0	6	6.0	
Butter	10	0	0	8.5	
2 bran muffins		0	6	6.0	
2 strips bacon	10	0	1	6.5	
Total		0	13	27.0	295

—3—					
Lister griddle cake		0	14	6	
Butter	15	0	0	13	
1 poached egg		0	6	6	
Cereal coffee or Kaffee Hag					
Total		0	20	25	305

—4—					
Lister griddle cakes		0	14	6	
Butter	10	0	0	8.5	
1 poached egg		0	6	6	
2 strips bacon	10	0	1	6.5	
Total		0	21	27	327

—5—					
1 soy bean muffin		1	10	5.5	
1 bran muffin		0	3	3	
Butter	10	0	0	8.5	
2 strips bacon	10	0	1	6.5	
Total		1	14	23.5	276

—6—					
Lister griddle cakes		0	14	6	
Butter	10	0	0	8.5	
Bran					
Cream	50	2.5	1.5	9	
Grapefruit	50	3.5	0		
Total		6	15.5	23.5	304

—7—					
Strawberries	100	7	1	1	
2 strips bacon	10	0	1	6.5	
1 poached egg		0	6	6	
Total		7	8	13.5	180

—8—					
1 scrambled egg		0	6	6	
2 strips bacon	10	0	1	6.5	
1 bran muffin		0	3	3	
Butter	10	0	0	8.5	
Fresh pineapple	50	5	0	0	
Total		5	10	24	276

—9—					
1 soy bean muffin		1	1	5.5	
Butter	25	0	0	21	
Fresh peaches	100	9	1	0	
Total		10	2	26.5	238

—10—					
Listers griddle cakes		0	14	6	
Bran					
Butter	10	0	0	8.5	
Cream	50	2.5	1.5	9	
Total		2.5	15.5	23.5	290

—11—					
Orange juice	100	12	1	0	
1 egg yolk		0	3	6	
2 listers bran muffins		0	18	12	
Butter	10	0	0	8.5	
2 strips bacon	10	0	1	6.5	
Total		12	23	33.0	437

—12—	Gms.	C.H.O.	Protein	Fat	
Pineapple	100	10	1	0	
Breakfast bran					
Cream	50	2.5	1.5	9	
1 soy bean muffin		1	10	5.5	
Butter	5	0	0	4.7	
Total		13.5	12.5	19.2	275

—13—					
Watermelon	200	14	2	0	
4 strips bacon	20	0	2	13	
1 soy bean muffin		1	10	5.5	
Butter	15	0	0	13	
Cream	25	1	.7	4.5	
Coffee (cereal)					
Total		16	14.7	36	448

—14—					
Grapefruit	100	7	0	0	
4 strips bacon	20	0	2	13	
1 poached egg		0	6	6	
Whole wheat toast	20	10	0	0	
Butter	10	0	0	8.5	
Total		17	8	27.5	348

—15—					
Steel cut oats	100	14	3.5	1.5	
Cream	75	4	2	13.5	
4 strips bacon	20	0	2	13	
1 poached egg		0	6	6	
Total		18	13.5	34	433

—16—					
Muskmelon	150	15	1	0	
4 strips bacon	20	0	2	13	
Tomato omelet		3	13	20.5	
Total		18	16	33.5	410

—17—					
Muskmelon	150	15	1	0	
1 poached egg		0	6	6	
2 bran muffins		0	6	6	
Butter	20	0	0	17	
Milk	150	7.5	4.5	6	
Total		22.5	17.5	35	479

—18—					
Peaches	50	4.5	0	0	
Oats	75	10.5	2.6	1	
Cream	50	2.5	1.5	9	
Poached eggs, 2		0	12	12	
8 strips bacon	40	0	4	26	
Total		17.5	20.1	48	584

—19—					
1 poached egg		0	6	6	
4 strips bacon	20	0	2	13	
Strawberries	100	7	1	1	
Steel cut oats	75	10.5	2.6	1	
Cream	25	1	1	5	
Milk	50	2.5	1.5	2	
Total		21	14.1	28	392

—20—					
Strawberries	100	7	1	1	
Cornflakes	15	12	1	0	
Cream	50	2.5	1.5	9	
2 bran muffins		0	6	6	
Butter	10	0	0	8.5	
Total		21.5	9.5	24.5	353

—21—					
Strawberries	100	7	1	1	
Steel cut oats	75	10.5	2.6	1	
Cream	75	4	2	13.5	
1 poached egg		0	6	6	
2 bran muffins		0	6	6	
Butter	10	0	0	8.5	
Total		21	17.6	36	484

—22—	Gms.	C.H.O.	Protein	Fat	
Grapefruit	50	3.5	0	0	
1 egg yolk		0	3	6	
Steel cut oats	100	14	3.5	1.5	
Cream	100	5	3	18	
Bran					
1 poached egg		0	6	6	
4 strips bacon	20	0	2	13	
Butter	10	0	0	8.5	
2 bran muffins		0	6	6	
Total		22.5	23.5	59	719
—23—					
Cornmeal mush	25 of meal	17.7	2	.5	
Cream	75	4	2	13.5	
4 strips bacon	20	0	2	13	
2 poached eggs		0	12	12	
Milk	100	5	3	4	
Total		26.7	21	43	
—24—					
Strawberries	100	7	1	1	
Steel cut oats	100	14	3.5	1.5	
Cream	75	4	2.2	13.5	
1 poached egg		0	6	6	
Total		25	12.7	22	350
—25—					
1 shredded wheat	30	25	4	.6	
Cream	75	4	2	13.5	
2 strips bacon	10	0	1	6.5	
1 poached egg		0	6	6	
Total		29	13	26.6	411
—26—					
1 shredded wheat	30	25	4	.6	
Cream (40%)	50	1.5	1	20	
2 bran muffins		0	6	6	
Butter	30	0	0	25.5	
Grapefruit juice	50	3.5	0	0	
8 strips bacon	40	0	4	26.0	
Total		30	15	78.1	891
—27—					
Peaches	100	9	1	0	
Cream	50	2.5	1.5	9	
Whole wheat toast	40	20	1	0	
Butter	10	0	0	8.5	
1 poached egg		0	6	6	
Total	28	31.5	9.5	23.5	240
—28—					
Fresh grapes	100	15	1	1	
Baked eggs in cheese		2	17	26	
2 bran muffins		0	6	6	
Butter	20	0	0	17	
4 strips bacon	20	0	2	13.5	
Steel cut oats	100	14	3.5	1.5	
Cream	50	2.5	1.5	9	
Total		33.5	31	74	926
—29—					
French toast	40	23	8	14	
Butter	20	0	0	17	
8 strips bacon	40	0	4	26	
Ovaltine	20	14	3	2	
Cream (40%)	50	1.5	1	20	
Total		38.5	16	79	931
—30—					
Strawberries	200	14	2	2	
Cream	50	2.5	1.5	9	
Whole wheat toast	40	20	1	0	
Butter	10	0	0	8.5	
Tomato omelet		3	13	20.5	
Total		40	17.5	40	577
—31—					
Orange juice	100	12	1	0	
Egg yolk (raw)		0	3	6	
Shredded wheat	30	25	4	.6	
Cream	75	4	2	13.5	
4 strips bacon	20	0	2	13.5	
1 poached egg		0	6	6	
Total		41	18	39.6	598
—32—					
Fresh pineapple	100	10	1	0	
Whole wheat toast	40	20	1	0	
Butter	10	0	0	8.5	
Spanish egg		11	14	24	
4 strips bacon	20	0	2	13	
Total		41	18	45.5	637
—33—					
String beans	100	6	2	0	
1 poached egg		0	6	6	
Alvita tea					
Total		6	8	6	110
—34—					
Asparagus	100	2	2	0	
Tomatoes	100	4	1	1	
1 egg		0	6	6	
Total		6	9	7	123
—35—					
Tomato omelet		4	1	1	
Butter	10	0	0	8.5	
2 eggs		0	12	12	
Total		4	13	21.5	252
—36—					
Asparagus	200	4	4	0	
1 egg		0	6	6	
Alvita tea					
Total		4	10	6	110
—37—					
Grapefruit	100	7	0	0	
Bacon	25	0	3	15	
Alvita tea					
Total		7	3	15	175
—38—					
Listers griddle cakes		0	14	6	
Butter	10	0	0	8.5	
Kaffee Hag					
Total		0	14	14.5	196
—39—					
Butter	5			4.2	
Baked egg plant		4	7	6	
1 soy bean muffin		1	10	5.5	
Alvita tea					
Total		5	17	15.7	232
—40—					
Oats	10	6.6	0	0	
Bacon	20	0	2.2	13	
Milk		5	3	4	
Alvita tea					
Total		11.6	5.2	17	220
—41—					
Asparagus	200	4	4	0	
Orange	100	12	1	0	
Alvita tea					
Total		16	5	0	64
—42—					
Asparagus	100	2	2	0	
Orange	100	12	1	0	
Coffee					
Total		14	3	0	68
—43—					
Spinach	100	3	2	1	
Grapefruit	100	7		0	
Alvita tea					
Total		10	2	1	57

(Articles following will contain lunches, dinners and recipes.)

American Society of Osteopathic Internists

S. V. ROBUCK, Editor
25 E. Washington St., Chicago

THE HEART IN ACUTE INFECTIOUS DISEASES*

GEORGE H. CARPENTER, D.O.
Chicago

It is not necessary at this time to discuss in detail the diseases which are responsible for acute heart infection.

From thirty to forty per cent of acute infectious diseases, such as scarlet fever, rheumatism, diphtheria, tonsillitis, pneumonia, focal infections and specific conditions with possibilities of developing cardiac complications, result in various degrees of cardiac disturbance and pathology.

Usually the endocardium and valves, especially of the left side, are affected. The pericardium and the myocardium may show signs of involvement also.

These complications, which are so distressing both to the physician and the patient, occur far too frequently Many times they are the result of misdirected treatment or carelessness on the part of those who are responsible for the patient's welfare.

It is my purpose to give you some of the reasons why as osteopathic physicians we have an unequalled opportunity to prevent many of these complications from occurring; also to stress the possibilities which osteopathy affords for the relief and comfort of those people who have the misfortune to be afflicted with chronic heart disorders as a result of some earlier acute infection.

Since the birth of osteopathy back in the early seventies, each year has shown progress and development of marked importance to our profession. As we come down to the more recent years, when we have had the advantage of many hospitals and institutions for the care of the sick, it has been possible to find out a great deal regarding the clinical results of osteopathic care and treatment.

CARDIAC RESEARCH

One of the most valuable and interesting developments is the work which has been accomplished by Dr. Burns and her helpers at the A. T. Still Research Institute.

With untiring effort, nerve pathways have been traced from their spinal centers to organs which they supply, and from the various organs of the body to the spinal centers.

Animals have been lesioned, and a careful study made of the effects produced upon the organ or organs supplied by the nerves emanating from the lesioned spinal segment. These experiments have been made not once, but many times, so that there can be no doubt as to the authenticity of the findings in a given series of tests.

To us, in this discussion, the work done in connection with the heart and its functioning is of special interest. It explains in a definite way why it is possible for the osteopath to treat the various heart conditions with so marked a degree of success.

It has been found in the laboratory that a lesion produced at the second dorsal vertebra will disturb the functional activity of the heart and result in a weakening of the cardiac muscle tissue.

A lesion produced at the fourth dorsal vertebra has created nervous reaction in the functioning of the heart, to be followed by depression, a weakened muscular wall, and a corresponding disturbance in the general health and vitality of the subject used for demonstration.[1]

Consistent and careful observation and study of human subjects and repeated experimentation on a long series of animal subjects prove that the strength and function of heart depend upon structural integrity for the maintenance of normal activity.

In considering the heart in its relation to the acute infectious diseases, the matter of cardiac resistance to the infection is of primary importance. Although a patient suffering from one of these diseases may at any time develop cardiac complications, treatment should be directed to normalizing anatomical structure and to strengthening the heart by special attention to the cardiac nerve and blood supply. By anticipating the possible demand which may be put upon the heart muscle, the danger from physical strain or infection can be greatly reduced.

Slight bony and soft tissue irregularities in the upper dorsal and cervical areas may act as predisposing factors and make the patient more susceptible to heart complications. Lesions of this character should be looked for and corrected in every case of acute infectious disease.

Because of his knowledge of the function and location of the nerves and nerve centers which control cardiac activity, and which have to do with the nutrition of the heart muscle, the osteopathic physician is in a most advantageous position when it comes to the treatment of these conditions. This understanding of the nerve supply makes it possible for him to be very definite and specific in his treatment of the heart.

STRUCTURAL CONSIDERATIONS

You will recall that the first cervical nerve trunk, as it passes from the spinal cord, gives off a nerve which is connected with the superior cervical ganglion of the sympathetic. The heart's rapid beat may be slowed by inhibition, deep pressure, applied at the base of the occiput. The first cervical nerve connection probably has something to do with procuring that effect.

The superior cervical ganglia lie in a position anterior to the transverse processes of the third cervical vertebra. It should be kept in mind that the scaleni muscles in their relation to the lower cervical vertebra may when in a state of contraction act as a source of irritation to the cervical nerves.

The middle cervical ganglia lying anterior to the transverse processes of the fifth cervical vertebra are also liable to irritation from continued contraction of the scaleni.

The inferior cervical ganglia in close relation to the seventh cervical and first dorsal vertebræ make this area one of great significance in cardiac disturbance and treatment.

The sympathetic nerve chain coming from the upper dorsal nerve trunks sends fibers to the cervical ganglia, which in turn give off fibers which unite with branches from the cervical portion of the pneumogastric nerves to form the superficial and deep cardiac plexuses, which send ramifying fibers to the minutest heart structure. The intrinsic heart mechanism is influenced by impulses which pass through the cardiac plexuses. This is demonstrated by the effects produced on the heart's action through treatment applied to the cervical and dorsal cardiac centers.

The neuromuscular structure of the heart is responsible for its rhythmic action, and will be briefly described.

The sino-auricular node, the timer or pace-maker, which is located at the junction of the right auricle and the superior venacava, originates the impulses which are carried to the auriculoventricular node, thence to the bundle of His from which the interventricular fibers carry the impulses, resulting in rhythmic ventricular contraction. These last mentioned, end fibers of His, are known as "Purkinje fibers" which pass to the inner surface of the ventricular muscle walls.

At times impulses may be originated out of order and at some point away from the normal path, resulting in irregular heart-beat.

With this "hook-up" of the nervous system and the cardiac muscle, together with the sympathetic control of the circulation to and through the heart, it is a perfectly logical conclusion that we can and do affect the heart by treatment applied to these cervical and dorsal cardiac centers.

PATHOLOGICAL AND OSTEOPATHIC PHYSIOLOGY

When the infection of some acute disease is carried to the heart there will occur elevation of the temperature, restlessness, increased pulse rate and sometimes precordial distress or pain.

Osteopathic treatment to quiet the disturbed cardiac centers will slow the pulse, reduce the temperature and relieve the restlessness and anxiety of the patient.

The heart deranged by acute infection is carrying an overload, and everything possible should be done to

*Read before the Internist Section at Des Moines, June 20, 1929.

[1]JOURNAL OF THE AMERICAN OSTEOPATHIC ASSOCIATION, March, 1929, p. 519, contains a very interesting article which describes in detail the results of lesions produced in animals at the A. T. Still Research Institute. Changes in cardiac function and muscle tone were demonstrated.

lighten the burden and relieve the strain. *Absolute rest is imperative.*

The patient should not be allowed to do anything that will in any way increase the demand upon the overworked heart muscle. Use of the bed pan should be insisted upon, even if the patient should feel equal to sitting up to move the bowels.

In some instances the ice bag or cold pack applied over the precordial area may be of use, if borne comfortably by the patient. Some patients will respond more satisfactorily to the application of heat.

SPECIAL CONSIDERATION TO OSTEOPATHIC TREATMENT

The special treatment for the heart condition should be administered in conjunction with the routine management of the primary infection. The osteopathic manipulation should be given in such a manner as to conserve every ounce of the patient's strength and vitality. Move the patient in bed as little as possible, reach under him or around him and gently relax the muscles by steady pressure. As the muscles relax, graduated deep pressure will slow the heart beat. If the condition of the patient will warrant, separate the ribs. At each visit a little more can be accomplished by reaching under the patient from both sides and slowly lifting at the angles of the upper ribs. This treatment will not only benefit the heart, but will also improve the respiration.

Inhibition in the suboccipital region will affect the general vasomotor and heart-regulating center in the medulla and bring about a reduction of the temperature.

Relaxation of all the muscles of the neck, and inhibition at the seventh cervical and first dorsal is effective in controlling and stabilizing the heart's action. The upper dorsal area as low as the fifth, with the corresponding ribs, should receive attention.

The accelerators and augmentors to the heart are given off at the second, third and fourth dorsal. Stimulative manipulation at this area of the spine increases and strengthens the heart beat. Dr. Burns states that lesions of these vertebræ, with special emphasis placed upon the fourth dorsal vertebra, depress the heart's action and interfere with the nutrition to the cardiac muscle, greatly reducing its tonicity and its strength. This statement was made after she had observed many clinical patients found to have upper dorsal lesions, as well as a careful study of results of experimental lesions produced in animals in the laboratory.

Long after the acute cardiac disturbance has subsided the patient should refrain from physical activity. As the strength gradually returns and the heart gets stronger the patient may be allowed to help himself and resume his activities cautiously. A slight indiscretion at this time may mean prolonged invalidism.

The cardiac membranes, especially the mitral and aortic valve structures, frequently are left in a greatly weakened condition by the infection. In cases of this kind careful guidance of the activities of the patient, combined with regular and systematic treatment directed to toning the weakened cardiac muscle, will do much to restore heart function and give the patient a greater degree of comfort.

THE VALUE OF A NEUROSIS

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Through ignorance we have felt irritated with our neurotic patients and have assumed an attitude of carelessness or indifference toward them and their needs. I say "assumed" because with all of our tendency to ignore what we do not understand, there is an uneasiness within us that will not let us simply dismiss the patient and his ills from our minds until we have done all that we can and should do to help him. I also say "through ignorance" without hesitation, because only too many times we are ignorant. Otherwise we would first recognize the neurosis and its cause and then we would know at the outset what to do to cure it.

Any conscientious physician feels or thinks (according to the predominance of his superior function), that he has failed in his capacity if he is not able in some way to successfully direct the patient who comes to him for help. If the need is physical, the proper investigations are made and the right remedy is applied. If the need is psychic, it is just as necessary that that need shall be analyzed to discover its roots, and to find a clear way of restoring the patient to a normal mental attitude toward life.

NEUROSIS IN THE PHYSICIAN

It might surprise the doctor to learn that being unable to understand his patient's neurosis and to set him on the road to recovery may cause a neurosis to develop in himself. One may hear the doctor express himself with an air of finality and a shrug of the shoulder, "Oh that patient is just a neurotic," or "I hope to goodness I never see that patient again."

However, this apparent dismissal of such a situation does not satisfy the true physician. He feels the responsibility of knowing and doing the right thing for the patient which his profession imposes upon him. If he feels unsure and helpless it may be because he has problems in his own life which are unsolved and which prevent his understanding the problems of others. It is definitely certain that he cannot show others the way until his own experience has shown him how to make his own mental adjustments to life.

NEUROSIS SPECIALISTS

The most hopeful sign that help will be given the neurotic patient is when the doctor who handles it recognizes his own neurosis in regard to his patient. He must realize that the particular neurosis is due to a psychological cause. This awakening will lead him to scientific investigations and study to prepare himself for the analysis and healing of neuroses. It is essential that he has the right kind of personality, plus the social outlook and knowledge required for the best understanding of human beings. This branch of the healing profession is as highly specialized as are those of surgery and medicine, and requires a special preparation and practice. The neurosis specialist, or problem solver, cannot forget that psychic disturbances lead to physiological and social disturbances also, so that a wide field of knowledge and interest must be covered continually.

PSYCHOLOGICAL PROBLEMS

People who have neuroses need particularly careful handling in order not to add new disturbances or to create fresh gaps between them and the possibility of relief. As a usual thing it is better to tell a patient that he has a psychological problem than to intimate that he has a mental illness, because he might conclude that the doctor thought he was insane or inclined toward insanity. If the patient can be made to feel that he is not picked out as an abnormal case and that everyone has in greater or lesser degree the same problems, he will be less self-conscious, and also, the way will have been opened for some constructive co-operation on his part toward his cure. The physician is the one who must be able to see this patient's individual needs and be able to direct the treatment which this patient specifically requires. The methods and the path which the patient travels toward a better adjustment of his life are in the hands of the physician.

NEUROSIS A SYMPTOM

All human beings are subject to maladjustments of some sort. The physician expects them and is not irritated by such physical symptoms as temperature rise, pain or other manifestations of disease. He expertly discovers the causes and gives relief. It is only of recent times that expert consideration of psychological problems has been given. Scientific research has shown that it is possible to give the same careful, exact, positive and constructive care to psychological problems as to those that are physiological. If this program of positive help for neuroses is to be effective, the neurosis must be considered as a symptom of some deep, underlying and important psychic condition.

TYPES OF NEUROSES

This new conception of neuroses and their treatments requires, in the first place, their recognition and an appreciation of their importance. The cause of the disturbance is hidden. It is wrong to think that the whole thing can be crowded into the background, or submerged, or cast off like an old garment. The cover must be taken off; the whole situation must be brought out into the light of truth so that the patient can take a new hold on his life and live it harmoniously with himself and with society.

The fact that individuals differ so much from one another makes the problem of approach different for each

type. Each type has its own certain, distinct symptom and reaction and must be handled from that standpoint.

There is the neurotic who enjoys his neurosis, and uses it as a means of securing whatever he wants. This person has what is known as the "will-to-power." This is an attempt on his part to force others to always do what he wills. The woman resorts to tears; the man blusters; both have tantrums. Some women faint; some men leave home periodically; they resort consciously and unconsciously to any and all kinds of tricks to accomplish their own purposes.

There is the neurotic who always blames fate for everything that goes wrong. He establishes an alibi by which he escapes the necessity for taking responsibility for doing things he does not wish to do. He makes a pattern in his mind of evading the consequences of action on his own part. He is the sympathy seeker and is very likely to be the calamity howler.

The chances to help these and other types as well as variations of all types, depend upon the type of individual, his ability to see his own state, and *his earnest desire to cure his neurotic condition.* He must be willing to face himself as he is, and to take any and all steps necessary to put himself in harmony with the laws of life.

WHAT IS NEUROSIS?

Jung says, "The neurotic is only a special case of civilized man at war with himself."

Neurosis shows a division within the self. We have, in accordance with tradition and the universal idea, built up a standard of conduct which may or may not have a sure basis. The inner self longs to be free, yet does not dare express itself against standardized opinion. The resulting conflict expresses itself in a neurosis. Jung says again, "Were the conflict in all respects clearly conscious, neurotic symptoms would presumably never occur. Such symptoms arise only when we cannot see the other side of our nature and the urgency of its problems. The function of the symptom is to help the unrecognized side of the mind to some kind of expression."

We must understand that the object of the treatment of the neurosis is to force the individual to hunt out the cause of the conflict and release the conflict—not only for the satisfaction of clearing yesterday's memories, of justifying today's attitudes, but also of building constructively for tomorrow. It is an attempt toward a new synthesis of life.

ENERGY OF THE NEUROSIS

The psychical energy which makes up a neurosis is a worthless energy. The cause of the neurosis must be rooted out so that the energy which is being expressed in an unproductive way may become useful energy turned to a useful purpose.

A neurosis is valuable as an indication of trouble that needs to be investigated, but when the neurosis is retained for any reason then it serves as a leak.

NEUROSIS AN INFERIORITY

It is a mistaken idea that a neurosis is a kind of psychic inferiority. Behind the neurosis are hidden our deeply rooted spiritual attitudes and our guiding principles which are rooted in our powerful psychic influences.

Our natures demand expression and the neurosis is a manifestation of an effort for the hidden and buried parts to come into consciousness and to be expressed individually as a thing which has an inherent right to be expressed.

With a neurosis a feeling of inferiority is developed. This is not caused by a breaking away from the generally accepted moral law, but the inner self for the sake of psychic equilibrium demands that a proper compensation or coming to terms be reached.

It is this insatiable demand on the part of the inner self that results in a feeling of inferiority when the need is not met.

STRENGTH OF THE PSYCHIC INFLUENCES

One is held firmly in the grip of the unconscious need or "of these powerful psychic influences" and cannot "will" to let the need pass out of consciousness without paying the penalty of becoming neurotic.

By keeping one's face turned determinedly away from one's problem one may succeed in forgetting the cause of the neurosis, though he does not cease to be neurotic. Such a condition means stagnation.

SUBCONSCIOUS CONTENTS

In my previous articles I have many times referred to those subconscious contents which are not only disagreeable and repressed on that account, but also those contents which consist of dormant possibilities that are waiting to be born and to come to the light of day. One is completely at the mercy of "these powerful psychic influences" (for as stated heretofore one may not "will" them away) and is unable to get away from them. Jung calls them autonomous complexes.

AUTONOMOUS COMPLEX

We know that the first step toward clearing a complex or disturbance is becoming conscious that there is trouble and of knowing the cause. However, we have learned that knowing the difficulty does not ever clear it away entirely or automatically as we have been mistakably led to believe.

The relief that comes after finding the cause of the neurosis is very marked, but that does not go far enough. The discord that was before felt physically, now becomes a psychic tumult.

Everyone who has passed through the experience feels the force of Jung's words when he describes it: "What was before a semi-physical hunger and a physical pain, now becomes psychic hunger and psychic pain. One longs for something and yet one knows not what. The longing is a constant demand, a tormenting urgent emptiness, which can be forgotten from time to time, but never overcome by strength of will. It always returns. At first it is not known whither the longing is directed. A good deal can be surmised about it; but all that can be said with certainty is that . . .an unconscious something raised this demand independently of our consciousness, and inexplicably to our criticism and continues to push its claim. This something is what I have described as an autonomous complex."

SOME EXPLICIT CAUSES FOR NEUROSES

It is not known why the sexual problem presents one of the greatest and most frequent causes for neurosis. Love seems to hold or to play such a large part in man's make-up that a sufficient attention is demanded by the subconscious for that part of life. The individual that thinks or boasts that he has no sexual problem (unless it has been normally cared for) is only deluding himself and is paying for his ignorance in neurotic symptoms even though he does not know the cause for them.

Other causes for neurotic symptoms are:

The maladjustment of the introvert or extravert who is not true to his type;

Any ineffectual effort for freedom;

Failure to adapt to reality;

Inability to progress out of infantility.

There are no end of causes. Many people are neurotic without realizing their condition.

CONCLUSION

Let us be sure to give proper stress and understanding to the problem presented by neurosis.

Let us see to it that the neurosis does not resolve itself into the insoluble conflict, for when that point is reached then further development is impossible until harmony is restored within the life of the individual.

I have had three personal ideals:

One, to do the day's work well and not to bother about tomorrow. You may say that is not a satisfactory ideal. It is; and there is not one which the student can carry with him into practice with greater effect. To it more than anything else, I owe whatever success I have had—to this power of settling down to the day's work and trying to do it well to the best of my ability, and letting the future take care of itself.

The second ideal has been to act the Golden Rule, as far as in me lay, toward my professional brethren and toward the patients committed to my care.

And the third has been to cultivate such a measure of equanimity as would enable me to bear success with humility, the affection of my friends without pride, and to be ready when the day of sorrow and grief came to meet it with the courage befitting a man.

SIR WILLIAM OSLER

Technic

THE CERVICODORSAL AREA*

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The cervicodorsal area is known as the area of vital centers, for in it are found the nerve centers for respiration, circulation, perspiration, heat, heart, lungs, eyes, stomach and lymphatics.

In any disease, when severe pain or marked functional disturbance causes a reflex upset, it is always one or more of the nerve centers for the cervicodorsal which is affected. Can you think of any reflex disturbance that does not go through one or more of these nerve centers? This being so, does it not seem reasonable that in the cervicodorsal area you will possibly find the central spinal nerve center for all functions of the body? I have found it so, and have demonstrated it hundreds of times in the past ten years in private practice, at local, state, interstate, national and foreign conventions. The possibilities of this work are therefore not new to many who have listened, seen, tried and believed.

Osteopathic adjustment of the vertebrae and ribs in the cervicodorsal area, namely, the seventh cervical vertebra to the third dorsal and the upper ribs, has many angles that are sometimes puzzling—and necessarily so—as all functions of the body can be controlled from this area in adjustive osteopathic cases. The term "adjustive" used herein implies the attempt at normalizing vertebral and rib articulations. No one method of adjustment is right at all times. Dr. John A. MacDonald, in his article, The Application of Force,† clearly states how to change your pace in osteopathic adjustment.

On the patient's first visit, a good history should be taken, followed by a thorough spinal and physical examination. The findings should be carefully recorded. My practice is to make a spinal examination before the physical, as it aids in the physical examination. At each subsequent visit what the patient has to say regarding his ailment, relief or otherwise should be recorded; also, make notation of any physical and spinal changes. It takes but a minute or two.

It is astounding how many disturbed functions of the body you will find dependent upon a change in the anteroposterior curves of the spinal column. Think of the myriad ailments accompanying the straight spine—anterior upper dorsal, rigid or semi-rigid lumbodorsal and the posterior lower lumbar and top of sacrum—to say nothing of the posterior spine. Some of the most common of them are tuberculosis, arthritis, gastro-enteroptosis and pelvic ptosis. If we, as osteopaths, knew nothing except how to correct faulty posture, we should hold a most advantageous position in the world. Are we utilizing this knowledge to the full? Let us, for a while at least, use what we gave years of a valuable part of our lives to learn. Let us apply it, and there will be no need for the foregoing admonitory remarks. The public is begging for osteopathy, but I am getting away from the subject in hand.

Your knowledge of the cervicodorsal area will aid you greatly in making your examination and diagnosis. It is a means of quick detection as to how the case is progressing, and is of greater value in that that you can usually tell the patient what is delaying progress, or whatever exists to aggravate his condition, such as worry, grief, overwork, abuse of any kind, menses, constipation, chill, etc., or possibly focal infection, ulceration, improper diet, or something requiring surgical or other care. Your osteopathic work will be given more intelligently when you have abolished the habit of routine treatment, as it takes but a minute or so to determine progress, and the patient will realize that you understand his condition.

Getting back to posture: For almost any disease or disturbed function to which a person is subject, your quickest and most lasting results can be obtained through your osteopathic work to improve posture, which can best be done through careful and intelligent adjustment of the first dorsal vertebra. This conserves the tissue, by concentrating your work at one spot, and thus prevents exhaustion through obtaining the desired results in a short space of time, without irritation. We all know that we can get wonderful results, in many cases, by almost any kind of osteopathic adjustment of any part of the spinal column, but we should be more specific so that we may handle intelligently any case, and thereby know whether it is purely an osteopathic case, or otherwise. Many other disturbed functions will disappear as you relieve spinal tension through normalizing posture, and a large proportion of disturbed functions never will improve to any extent until you do change posture. Try it out on some of your old patients, and note the change.

CARE OF DISTURBED FUNCTIONS OF THE ENDOCRINE GLANDS

The endocrine glands and their functions cover a big field; it is not necessary to learn all that is written about them, but at least one should have a general knowledge as to their care when function is disturbed.

Most skin disturbances, dry or oily hair, brittle nails, nervous exhaustion, and many other bodily ills, can be taken care of by adjustment of the seventh cervical vertebra. The nerve center at the seventh cervical vertebra apparently controls or affects all the endocrine glands.

A cervicodorsal vertebra might be lesioned in one or more of the known types of lesions, and therefore would have to be adjusted accordingly; also one vertebral lesion is often dependent upon another, or the lesion might be maintained or correction prevented by one or more of the upper four ribs.

LESIONS OF THE SEVENTH CERVICAL VERTEBRA

The following tabulation of parts or functions disturbed by specific vertebral and rib lesions is given as a guide for those who are interested and wish to do more specific osteopathic adjustment:

Heart	Dysmenorrhea
Respiration	Amenorrhea
Tinnitus aurium	Metrorrhagia
Vertigo	Menorrhagia
Asthma	Miscarriage (left)
Equilibrium	Appendicitis
Blood pressure	Cecum (right)
Headache (usually left)	Fatigue
Diarrhea	Nervousness
Lymphatics	Cough
Thyroid gland	Pelvic ptosis
Hemorrhoids	Testicles
Rectal disturbances	Prostate
Lesions of coccyx	Metabolism
Uterine displacements	Endocrine glands
Uterine tumors	Constipation (right)

Lesions of the seventh cervical vertebra also make or control all sacral and innominate lesions and diseases and disturbed functions of the skin.

LESIONS OF THE FIRST DORSAL VERTEBRA

A lesion of the first dorsal vertebra is found with the following:

Cystitis and urinary bladder disturbances (usually right first dorsal), save that due to pelvic ptosis, which is due to a lesion of the seventh cervical vertebra in the female.
Impotency (left first dorsal).
Many eye disturbances (not astigmatism).
Acute lumbago (that which people speak of as a "stitch" or "kink" in the back).

A lesion of the first dorsal makes or controls all fifth lumbar lesions, and is at fault in posture, curvature, cecum and affects the gallbladder.§

LESIONS OF THE SECOND DORSAL VERTEBRA

A lesion of the second dorsal vertebra is found with the following:

Eyes	Gas
Lungs	Stomach
Indigestion	Gastralgia
Lumbago	Diabetes; lesion between second and third dorsal on right side.
All foot and leg conditions, save the few you find caused by a pelvic slip of the first dorsal, that puts the legs out of balance.	

*Delivered before the Technic Session, A.O.A. Convention, Des Moines, 1929.

†MacDonald, John A.: A formula governing the application of force in tissue adjustment. JOUR. AM. OSTEO. ASSN., Feb., 1929, p. 438.

§ Recently I found that I could relieve a head cold and sore throat a great deal easier and quicker by careful work at the first dorsal vertebra.

A lesion of the second dorsal vertebra makes or controls a lesion of the fourth lumbar vertebra.

LESIONS OF THE THIRD DORSAL VERTEBRA. THIRD AND FOURTH RIBS

A lesion of the third dorsal vertebra, third and fourth ribs, is found with the following:

Colds, Hay fever, Sore throat } See "First Dorsal" notation
Cervical lymphatics
Circulation
Torticollis
Cervical lesions
Intestinal stasis
Liver (right)
Kidney
Spleen
Gastro-enteroptosis
Acid stomach (fourth right rib)
Nausea and vomiting (left)
Car or sea sickness (left)
Astigmatism
Heart (left rib)
Apoplexy
Pancreas (right)
Lungs
Adrenals
Bowels
Nose
In fact, everything not named as caused by the seventh cervical or first and second dorsal and ribs attached.

SUGGESTIONS

With a lesion of the seventh cervical vertebra, you have exactly the same lesion of the sacrum.

With a lesion of the first dorsal vertebra, you have exactly the same lesion of the fifth lumbar vertebra.

With a lesion of the second dorsal vertebra, you have exactly the same lesion of the fourth lumbar vertebra.

A disturbed function from any cause, either mechanical, electrical, chemical, atmospheric, or thermal, will show first in the cervicodorsal area.

Probably the most neglected spinal lesion is an upward rotation of a vertebra. It is too often confused with a posterior lesion.

Remember that anatomists tell us that the spinal cord ends at about the second lumbar vertebra, therefore it is not reasonable to find a spinal nerve center below that point.

If you do any adjusting in conjunction with other spinal adjustment, make the cervicodorsal adjustment last. By so doing, you will avoid further irritation and get a much better result.

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OSTEOPATHY IN SURGERY*

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A book could be written under the title of this paper without covering all the phases of the subject. And then as a sequel, one might easily write as voluminously under a title in which the first and last words are transposed, "Surgery in Osteopathy."

The writer is of the opinion that the surgeon of the osteopathic school has an entirely different sort of a viewpoint from which to consider the tremendous field of surgery. This viewpoint upon which the osteopathic surgeon stands modifies his entire concept of surgical mortality, surgical morbidity, surgical pathology, surgical diagnosis, surgical prognosis and surgical technic. The surgeon who is osteopathically-minded is unable to agree with most of the ideas of the surgeon who is medically-minded. In only one phase of the work do they near a parallel course, that of surgical technic. And in this matter of surgical technic what difference exists may be said to be of a psychic, or if we dare say it, of a spiritual nature.

The surgeon who is not aware of a deep reverence for the sanctity of normal living tissue is not deserving of his title. The surgeon who refuses to recognize the marvelous mechanical, chemical and electrical capabilities of normal living tissue and looks upon it as so much unimportant flesh had better be following some other vocation. The sum of human knowledge in the field of surgery is so small, and the egotism of the practitioners of the art is so prone to inflation that it behooves the conscience-possessing surgeons to ply their art with an initiative tempered with humility The sanctity of functioning tissue should not be defiled by the scalpels of those who have no respect for Knowledge, God or Nature. And there are many such. Hertzler, in his pointed way has branded the ilk with the title "appendix hounds."

Osteopathy has shed its softening influence upon the surgical technic of the osteopathic surgeon. The osteopathic sense with which one contemplates disease from the standpoint of health makes one shudder with dismay at the sight of meddlesome surgery. This osteopathic deference forbids the rough handling of living tissue, the application of crushing clamps, the rubbing and packing upon delicate body cells of the traumatizing gauze, the needless sacrificing of organs. This osteopathic sense is responsible for the opinion that a blacksmith makes a clumsy watchmaker. Some of the most skillful surgeons have the highest death rates. A good dressmaker needs brains along with her nimble fingers. Just because a man can operate a linotype machine is no proof that he can write a readable book. A successful surgeon must be a good mechanic as well as an artist; but more important than either of these is the necessity for the possession of a conscience.

For the purposes of this discussion the factors, surgical morbidity and surgical mortality may be disposed of together. We may consider surgical mortality as merely a higher degree of surgical morbidity. Those of our patients who die as a result of our surgical ministrations may be said to die as a result of our mistakes. It is true that there are exceptions. But we all know of cases, whether we dare admit as much or not, that probably would have lived if we had adopted a policy of watchful waiting, or if we had handled the plan of operation a little differently. If this is true of those patients who failed to survive, what of those who suffered damage at our hands?

The matter of surgical morbidity, whether raised to the degree of surgical mortality or not is intimately linked up with surgical diagnosis and surgical pathology.

Surgical pathology has a somewhat different meaning to the osteopathically trained physician than it has to the medically trained one. Osteopathy teaches us that certain definite structural abnormalities have important bearings upon the causation of pathological changes in tissue. Those of us who are trained osteopathically are unable to visualize pathology without at the same time visualizing the more or less remote structural abnormality which has acted as the causative factor. The medically-trained physician on the other hand does not enjoy the same feeling of security as he attempts to visualize pathology. His search for the etiology is more or less jumbled up by his tendency to bring in his chemical and bacteriologic causes, disdaining to even consider the obvious importance of structural cause whether it be in bony or soft tissue, whether it be traumatic or hereditary. As the medically trained physician studies his case of peptic ulcer, he is at a loss to explain the cause. He wavers between the bacteria, the digestive fluids, the thermal injuries, the diets, etc., etc. It does not occur to him that something farther away must first be responsible for lowered resistance that his secondary factor may be enabled to do its damage. Not all of us believe that any *specific* lesion can be called responsible for the lowered resistance. All of us may be unable to find the structural abnormality that is shedding its influence upon the area in which the peptic ulcer is found. But this inability to place our fingers on the causative site does not dampen our faith in the teaching that the trouble exists. It is there even if we cannot find it. We humans are fallible. Structural abnormalities as a cause for pathological changes in allied tissues is as true in the human organism as it is in any material machine fashioned by the hands of man. A cog-wheel out of balance in your watch will affect the swing of the balance-wheel just as surely as the tissue lesion will produce pathology. If this is true, and who dares to undertake the proving of its falsity, why should not the osteopathic idea of surgical pathology differ so radically from the medical.

If all this is true of surgical pathology, the same osteopathic influence certainly must apply in the surgical diagnosis.

We daresay the osteopathic surgeon refuses to perform surgical operations upon a percentage of his patients twice as high as those surgeons of other schools. The osteopathic training steps in and changes the whole aspect of things. That osteopathic reverence for living tissue

*Prepared for the A.O.A. Convention, Des Moines, 1929.

will not allow a surgeon-with-a-conscience to trespass where he knows the scalpel is not needed, where the etiologic factor residing at a distance is amendable to osteopathic correction. In such cases it would be just as sensible to remove swollen axillary glands that are reacting as a result of unnoticeable infection in the hand.

It is true that in many cases the pathologic changes have been progressing for so long that irremedial damage has been done, and surgical operation is necessary for the removal or the repair of the diseased organ. However, osteopathy steps in to improve the prognostic factor by also correcting the remote cause of the pathology. How long will these methods be ignored by the healing professions? How long will the osteopathic profession neglect its keeping of case records, the only agency through which the world may be shown?

Taking it for granted that the osteopathic training modifies our attitude toward surgical diagnosis, how can we excuse the thousands of surgical operations performed upon patients who are not really surgical patients? Who has not come into contact with the patient suffering from a partial paralysis of the bowel as a result of traumatic injury to the lumbar spine? How many of these cases are rushed to the hospitals and are obliged to render up their normal appendices as sacrifices to surgical ignorance? How many young girls have had appendectomy performed for the relief of ovarian pain? How many women have been forced to undergo abdominal exploration merely because they were experiencing the nausea of pregnancy?

The writer does not wish to convey the idea that he thinks the osteopathic surgeons do not make such mistakes. But he is absolutely certain that the osteopathic surgeon, due to his governing osteopathic sense, is not so apt to make these mistakes as are others. In this way does osteopathy in surgery benefit the patient as far as diagnosis is concerned.

Much can be written on prognosis. If it were only to bring the attention of the world to the osteopathic prevention of postoperative pneumonia, all that could be written would be fully justified.

The writer recently was a witness to an operation being performed by one of the country's best-known genito-urinary surgeons. The operation was a prostatectomy. During the course of the surgeon's remarks, statements somewhat as follows were made: During the early years of surgery of the prostate we considered ascending infection and renal failure as the greatest danger which threatened these cases. Then as we overcame these dangers by preliminary preparation and the two-stage operation, the new danger of postoperative hemorrhage loomed up. Then we learned how to overcome that danger. Today we fear nothing but postoperative pneumonia. When our prostate cases die, it is pneumonia that is responsible.

Wouldn't such remarks sound queer if they came from an osteopathic surgeon?

At another occasion the writer was present at an informal talk given by a medical surgeon who enjoys a reputation of being America's foremost surgeon.

He made the remark that his entire hospital and clinic organization was zealously studying the problem of preventing and conquering the far-too-common postoperative pneumonia. This man is firmly convinced that the pneumonia is the direct result of the chilling and the trauma applied at the time of operation, followed by the effects of the tight abdominal binder about the abdomen and lower ribs, and by the motionless attitude of the patient during the first few days following operation. The latter two factors sound so much like osteopathic statements that one is surprised to find them coming from such a source. How happy that great surgeon would be if he could ethically use osteopathy in his postoperative treatment, thereby banishing postoperative pneumonia from his hospital for all time.

All this is no idle dream. We daresay that a poll of the osteopathic surgeons of the country would bring to light less than a hundred cases of death from postoperative pneumonia, since the beginning of osteopathic surgery. Personally, the writer has never seen a case during his years of active surgical practice.

What is true of the lungs is true of all the other organs of the body. If the osteopathic treatment will eradicate circulatory stasis (which is what postoperative pneumonia is) in the thoracic vessels, the same treatment will eradicate it in the vessels of the kidneys, spleen, suprarenals, intestinal tract, etc. If such were not the case, the mortality rates of the osteopathic surgeons would be no lower than the rates of the others. If such were not the case, the osteopathic surgeons would see their share of postoperative ileus, their share of postoperative anuria, their share of postoperative shock. Do the osteopathic surgeons see their share of these and allied conditions?

We think not.

Roscoe Osteopathic Clinic.

American Osteopathic Society of Ophthalmology and Otolaryngology

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SCARLET FEVER AND THE EARS
QUINSY IN BABIES

C. C. REID, D.O.
Denver

The nose and throat are always involved more or less in cases of scarlet fever. The more severe the fever the more serious the nose and throat symptoms and the likelihood of complications. Running ear as a resulting complication of scarlet fever has been impressed upon me in the care of these cases, having had the honor of being called in on many cases treated by other doctors where running ears were already established.

The point of difference is my treatment from others, whether the case was or was not complicated by ear trouble, was this—prophylaxis. When called on a scarlet fever case my first caution is to prevent complications. The nurse is instructed to irrigate the child's nose and throat with a salt solution once or twice every day. This is done regularly in baby cases as well as in those of older children until the crisis has passed and the fever subsided. From many children large flakes and crusts which were blocking the nose and nasopharynx were washed away by this irrigation. This treatment is forced whenever reasoning and cajoling fail. Liquid petrolatum is injected into the nose following the irrigation. Most children who at first object readily submit to the irrigation later because of the relief they experience afterward.

QUINSY IN BABIES

I had practiced twenty-eight years and specialized in ear, nose, throat and eye diseases sixteen years before I saw my first case of quinsy in a baby. In fact, I had wondered if babies ever had quinsy. I learned from that experience that they do have quinsy; and that case might easily have been a fatal one without my knowing it. That is why I write about it, hoping it may be useful to those who are thinking along the same lines.

This particular baby in case had a running right ear dating from a bad cold. After making some effort to stop the running in the ear I saw that little progress was being made; the child improved so far as fever was concerned—for a while, but after a few days he became worse again.

I suggested to the parents that we go ahead and remove the baby's tonsils and adenoids even though considerable fever and tonsillitis were present. They decided to follow my advice and took the child to the hospital the next day. When I arrived the baby had temperature of 104°, a rapid pulse, was prostrated and apparently very weak. I had a consultation and the physician had his doubts about the operation. Examining the patient carefully I noticed that the left tonsil was slightly larger than the right, but still it did not occur to me that the child likely had quinsy.

In the light of all that had passed I decided that the better chance for the child would be on the side of doing the operation even though conditions were not favorable. We gave the child a general anesthetic and as soon as I began the operation on the left tonsil a pus sack immediately opened and a large quantity of pus drained into the throat, which was taken out by suction. The other tonsil was promptly removed and the child made an uneventful recovery.

Speculation.—After it was all over I frequently speculated about what might have happened had we treated

the child on the expectant plan—waiting for the condition to become more favorable for tonsil and adenoid operation. I think it unlikely that the quinsy would have been discovered; that being the case, the patient would have died within two or three days unless the abscess had broken and drained spontaneously. The child would have been so poisoned and weakened the chances would have been against pulling through. Many children die while waiting for more favorable conditions when they have tonsillitis, toxemia and focal infections. I believe that quinsy in small children has been overlooked by others than myself; I do not recall its having been discussed at any convention I have attended, nor in college or postgraduate clinics. We know that tonsillitis is common with them.

Children object seriously to a careful examination of the throat. And I believe that doctors have been satisfied to look into their throats and seeing that they had large tonsils, to treat them on the expectant plan, in case they had fever and sickness, with the idea that they would later be in a better condition to bear an operation.

I would like to invite reports on this subject, both for the benefit of ourselves and the children.

COMMENT

Both the subjects selected by Dr. Reid are worthy of discussion, and I trust that everyone that has had cases of this type will report them to me. I would like to have interesting case reports for this column, and if you have any in your report files, please send them in that we may all benefit by your experience.

I have had two cases of quinsy in children. The first had suffered for about three days before I was called in. I could not make an examination as the child seemed unable to open its mouth, and neither could I force it open. As a last resort I put her into a tub of hot water, being careful to keep the neck covered. Half an hour later profuse perspiration set in and the abscess ruptured. The child made an uneventful recovery. That was about four years ago and there has been no recurrence.

The second case was similar to Dr. Reid's although the symptoms were not so severe. The pus sac was not discovered until the tonsils were removed.

Dr. Reid's suggestions in preventing ear complications in scarlet fever are very valuable. In some cases I have used 25% Icthyol ointment as a pack underneath the angle of the jaw and around the ear. I have thought that this helped although perhaps the irrigation would have been enough. J. M. W.

American Osteopathic Society of Proctology

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BUSINESS SIDE OF PROCTOLOGY*

WM. S. CHILDS, D.O.
Salina, Kansas

There is perhaps no one thing that has done more harm psychologically to both the physician and the patient than the timeworn fallacy that a doctor cannot cultivate at least some of the qualities and attributes of the business man because his training has been along professional lines exclusively and therefore his mind must necessarily be entirely given to the business of relieving human suffering.

It might be just as sensible to say that grocerymen and clothing merchants cannot be good business men because their thought is so absorbed in feeding and clothing humanity.

Analysts have proved that the doctor who is forced to sharpen his wits in business combat has all the better chance of having a keen, rested mind to devote to the problems of his practice—a mind rested by a change as it were.

The times demand that all professional people must have some definite knowledge of good, sound, conservative investments. How can the doctor have anything to invest if he does not first learn to charge reasonable fees and insist on collecting them? He must also learn that patients respect him the more for placing a proper estimate upon the value of his services.

The doctor, then, must study the business side of his practice to be able to meet (a) increased cost of living; (b) increased cost of education and (c) increased competition.

The Office.—The patient gets his first impression from the office: it should be a good one and well located as to the most strategic point in busy traffic. Also it should be in a building of good reputation as to the types of business and the class of people housed in it. Choose the best your income will permit. The appointments and furnishings should be the best you can afford; modest and in good taste in keeping with the community in which you are located. I think the office should not only provide comfort, but should lend itself to the artistic arrangement of its furnishings.

In the matter of equipment the physician can either make or break himself. He must choose wisely the equipment that is essential to good work, and guard against buying every "latest and best" that is offered by some high-powered salesman.

The selection of a secretary and other assistants is a matter not to be disposed of lightly; care must be exercised to procure people who are discreet, trustworthy and above all loyal. It is always a safe rule to be willing to pay for brains, and in no place is this more true than in the selection of a secretary.

The arrangement of rooms is a matter that requires some study to insure convenience and maximum privacy. The entrance should always, when possible, be by a different door than is used for exit; this not only carries out the idea of privacy, but reduces to a minimum the opportunity for gossip and the "swapping" of symptoms.

Personal appearance and deportment.—The doctor is constantly judged by his personal appearance, by his speech and general bearing, as to whether or not he is courteous and kind to patients, by his environs and even by his associates. The doctor in the smaller town of a few thousands has the further problem of having to meet the personal friend and relative as a patient; he is fortunate indeed, if in dealing with these he can strike a happy balance between heart and head.

Financial affairs.—Definite arrangements of fees as to size and how they are to be paid should be made between the doctor and patient; and in determining the size of the fee the following things should be taken into consideration:

(a) Difficulty of the operation; (b) amount of time consumed in the following treatment; (c) amount of service that will be rendered the patient by doing the operation; (d) the social and financial status of the patient.

All payment of fees should be enacted between the secretary and the patient. Making the financial arrangement that half is to be paid when the work is started or the first treatment given, and the last half when the patient is dismissed, I have found to work nicely. And if that is not satisfactory with the patient, it opens the way to a definite understanding as to just what terms are suitable.

The question of fee splitting will have to be governed somewhat by the prevailing custom of the community in which you practice, but in the main, I believe, it is to be discouraged.

*Given before convention, Des Moines, 1929.

DR. BLANCHARD IN SEATTLE WITH DR. BINGHAM

Charles Elton Blanchard, M.D., known all over the world as the leading exponent and teacher of the methods of ambulant proctology was in Seattle, December 10-20, 1929, to conduct a clinic in collaboration with Dr. Lewis J. Bingham.

Dr. Blanchard demonstrated his masterly technic in the examination and treatment of over fifty rectal cases in the ten-day period. Dr. Bingham demonstrated the injection treatment of several cases of varicose veins before the class.

Dr. and Mrs. Blanchard gave two most interesting lectures on their recent trip to the hermit kingdom of Nepal, in India. One travelog was illustrated by a large number of stereopticon slides and the other by several rolls of movie films. Dr. and Mrs. Blanchard are the only Americans ever permitted inside the borders of that closed country. While in Seattle Dr. Blanchard addressed

the King County Osteopathic Association on Ambulant Proctology at their December meeting.

The osteopathic members of the Seattle class were, Dr. Sidney DeLapp, of Roseburg, Oregon, and Dr. Othur Hillery of Seattle. Dana Hillery, a senior student in the Medical College of Toronto University and son of Drs. Grace and Othur Hillery, also took the work. The Hillerys recently moved to Seattle from Toronto.

It is to be regretted that Dr. Blanchard has announced this and his January class in Hollywood as his last teaching effort. However, his fine philosophy and writings will still be available in the pages of his journal, *The Bulletin of Ambulant Proctology,* and at his annual clinic in Youngstown, where at least 500 physicians interested in ambulant proctology are expected to assemble next summer.

PROCTOLOGY CLINICS

Dr. Percy H. Woodall, program chairman for the American Osteopathic Society of Proctology, writes: "We wish to stress the matter of clinics this year. Members of the profession who are in need of proctological attention will be gladly accepted as clinics either for examination or treatment during the meeting of the A.O.S.P. and during the A.O.A. meeting as well."

AUTOINTOXICATION*

T. G. BILLINGTON, D.O.
Seminole, Oklahoma

The subject of autointoxication is bound up in such a number of factors that an analysis of the condition as a clinical entity is very difficult. In considering the subject we have to deal with the age of the individual, the infection of foods, combinations of foods, the effects of foods upon the bacteriology of the intestinal canal, the bacteriology of the intestinal canal independent of whatever foods are taken, the economic and sociologic conditions under which the patient lives, the status of secretion in the stomach, those pored into the small intestine, those of the intestinal mucous membrane, the status of motility of the stomach, small and large intestine, the rate of transit through the intestinal canal, oral and faucial sepsis in relation to a direct infection of the gastro-intestinal canal, various infective conditions such as those locked up in the gallbladder and appendix, bands, kinks, adhesions, etc.

In addition to the conditions and factors just mentioned there is the most important cause which must not be overlooked—that is the osteopathic spinal lesion. And when the subject is reduced to its final analysis I am of the opinion that there will be found just two great and important causes of autointoxication—the spinal lesion and improper diet. If the body is kept in proper structural adjustment so that all the body fluids and nerve impulses are unobstructed and then given the required amount of proper foods it will be the next thing to impossible for a state of autointoxication to exist. Under such conditions Nature has endowed the organism with sufficient immunity against all ordinary bacterial invasion.

Toxins formed in the bowel may conceivably be of four types: (1) Products of disintegration of foodstuffs by the digestive juices; (2) products of disintegration of foodstuffs by bacterial activity; (3) the ectotoxin discharged by the intestinal bacteria; and (4) toxins from the dead bodies of bacteria.

In regard to the first type—products of disintegration of foodstuffs by the digestive juices—the peptones, proteoses, etc., from proteid digestion are toxic only when introduced directly into the blood or tissues. And since these protein bodies, peptones, proteoses, etc., never gain entrance into the general economy, as such, they do little or no harm to the body. It is not until after the protein molecule has been reduced to the amino-acids that they are absorbed into the circulation.

In the microbic decomposition of albuminous molecules, in addition to non-crystalline bodies, are ammonia, diamino, and monamino acids, which give rise to aromatic series, also those of the fatty series, and finally, fatty bodies, such as butyric, caproic, valerianic acids, various ptomaines, and bodies of the aromatic series such as those of the oxyacid group; the phenol products; the indoxyl group, indol and skatol; and various gases, such as methane, hydrogen, carbonic acid, sulphureted hydrogen, etc. From this it will be seen that the microbic digestion gives rise, not only to amino-acids, but also to the products of their secondary decomposition, the aromatic and fatty bodies. The effect of the bacteria upon the albuminous molecules is increased as descent down the intestinal canal is accomplished. It is probable that in health the bacteria of the small intestine do not exercise any unfavorable action upon albumin, but do cause considerable fermentation of the carbohydrates with the formation of alcohol and fatty acids, such as lactic and succinic. These acids act to inhibit the action of the proteolytic bacteria and retard protein digestion.

Albuminous putrefaction occurs mostly in the large intestine in which the reaction is more or less alkaline. Hence it is that normally the fermentation of the carbohydrates takes place in the small intestine and that putrefaction of the nitrogenous bodies occurs in the large. The toxic bodies produced by the disintegration of the albuminous molecules through the influence of microbes are classified as first, the fatty volatile acids; second, the ptomaines and leucomaines; third, the aromatic bodies, and fourth, the gases.

Whenever the fatty acids accumulate in the blood, there results an acid intoxication, or acidosis, which is characterized by a diminution in the alkaline bases of the blood. This acidosis is supposed to occur only when the fatty acids are formed in excess.

Regarding the leucomaines, little is known. The ptomaines are basic bodies produced by the microbic decomposition of the amino-acids. They were discovered by Selmi in dead bodies, and for that reason he named them *ptomaines,* the word itself meaning a dead body. Some are harmless, others extremely toxic. Their formation by reduction can take place by the action of anaerobic bacteria of the intestines.

It is a well known fact that in intestinal putrefaction a relatively large quantity of ptomaines is produced in the intestine. Part of these ptomaines undoubtedly are absorbed, circulate in the blood and may cause toxic phenomena before being eliminated through the kidneys. Unfortunately we do not yet possess any really practical method for detecting the ptomaines or ascertaining their quantity.

Against the introduction of these toxic substances when formed in the general body there are certain antitoxic functions of the organism. These may be described as the character of the food, the antitoxic factor of elimination, preventing absorption, the acidity of the gastric juice, the bile, the pancreatic juice, the reaction of the small intestine, the flora of the large intestine, the defenses of the mucous membrane of the intestine, the liver, the antitoxic glands, and finally the general oxidizing process which takes place as a consequence of metabolism.

It is a well known fact that intestinal bacteria are not required to carry on the ordinary digestive processes of normal digestion. This being true, the question may be asked why is it that when so many billions of them are constantly present in the intestinal canal certain authors make the statement that they cause no harm. It is impossible to avoid the entrance of bacteria into the digestive tract. For example, B. lactis aerogenes, B. coli, B. bifidus, soon adapt themselves to the secretions of this part of the body, and ordinarily hold their own against newcomers. By virtue of their adaptation they are not ordinarily harmful to their host; under certain circumstances they are capable of doing service by giving rise to conditions which discourage the growth of many harmless and harmful species which man cannot readily exclude from his digestive tract. There are many conditions which influence the character and extent of bacterial decomposition in the alimentary tract. Among them are the chemical character of the foods, the solubility of the food in the digestive juices, and the volume and composition of these digestive juices.

Intermingled with these factors of food and secretory activity is the influence of aerobic and anaerobic conditions in the digestive tract, and the nature of the bacterial activities that occur there. The initiation of putrefactive decomposition in the digestive tract depends very largely, but probably not exclusively, on the activities of obligate anaerobes, and a portion of the digestive tract is at all times under anaerobic conditions. The large intestine is sel-

*Read before the A.O.A. National Convention, Des Moines, 1929.

dom visited by free oxygen, but it is probably usual in man for the small intestine to contain a little air.

If the stomach exodus is slow, the chances for an aerobic development are good, and hence under these circumstances we frequently find that there are evidences of putrefactive decomposition of food that has been unduly retained in the stomach—namely, the presence of sulphureted hydrogen, mercaptan, buytric acid, etc. On the whole, however, in average cases of intestinal toxemia which we see, no gastric condition can be ascribed as a contributing cause, in fact many gastric conditions are secondary to intestinal toxemias.

While in a few cases of intestinal toxemia it can be proven that putrefaction takes place in the lower end of the small intestine, the usual thing is that it takes place in the colon where anaerobic conditions are more perfect. In the colon the anaerobic conditions are well maintained throughout its entire course and here we find the greatest number of anaerobes and the most pronounced evidence of putrefaction. There is, however, a gradual fall in the number of living bacteria beyond the ileocecal valve so that in the rectum the numbers of cultivable bacteria are very much less than in the ascending colon.

THE TYPES OF CHRONIC INTESTINAL TOXEMIA

The variations in the clinical manifestations of chronic intestinal toxemia suggest that etiological conditions vary in different patients. Three types have been suggested:

1. The indolic type. This is marked by striking indicanuria and probably is due to members of the B. coli group.
2. The saccharo-butyric type which seems to be initiated chiefly by the anaerobic forms. In its simplest forms there is very little indol in the intestine.
3. A combined type, or cases combining the characteristics of groups one and two.

In the indolic type the members of the B. coli group form indol in considerable quantities and often they invade the small intestine in large numbers. The bacterial cleavages seem largely to replace normal tryptic digestion. Clinically we may classify here that type of chronic intestinal indigestion found in marantic children with large abdomens, in the treatment of which much patience is necessary. Such children usually crave only candies and pastries, all of which should be eliminated from their diets. Carbohydrates should be greatly restricted and their digestive processes must be improved. The milk may be peptonized to promote its earlier absorption. Considerable benefit seems to follow daily irrigation of the colon, which facilitates the removal of putrefactive products before they are absorbed. Exercise, fresh air, and thorough osteopathic treatments are essential in the proper management of these cases.

In the saccharo-butyric type of chronic excessive intestinal putrefaction the seat of the putrefactive process is the lower ileum and large intestine. It is due to the activity of the strictly anaerobic butyric-acid-producing bacteria.

The abundance of putrefactive anaerobes, especially the B. aerogenes capsulatus, gives a peculiar character to the intestinal contents. The organisms attack carbohydrates and proteins vigorously and butyric acid is formed from both, together at times with propionic caproic and valeric acids. These acids are largely responsible for the odor of the stools. From proteids, besides these acids, hydrogen, carbon dioxide and perhaps methane are formed. The stools have an acid reaction and this is an important point for the proctologist to remember in the treatment of pruritis. However, part of the acid is neutralized by ammonia and other bases formed in the process of putrefaction. It is probable that the ammonium butyrate acts as an irritant to the intestine, causing soft stools or diarrhea. This irritation may be associated with an excessive desquamation of the epithelium, not only in the intestine, but in the mouth and stomach as well. We have evidence of this in the presence of a large number of nuclei in the feces, and it is well recognized that excessive desquamation of the lingual and buccal epithelium is associated with digestive disorders. The patients suffer from flatulence. They tolerate carbohydrates and acids badly, and are very liable to attacks of diarrhea after a meal of carbohydrates. Acids may be formed in the mouth of these patients through the influence of anaerobes. This adds to the irritability of the intestine. It is possible that in advanced cases the B. aerogenes capsulatus may invade the small intestine and there find sugar from which to form butyric acid, etc. After the carbohydrates are thus exhausted, the anaerobic forms in the large intestine set up putrefactive processes in the proteids which exist there.

Examples of the combined indolic and saccharo-butyric types of chronic intestinal putrefaction are quite common. There are many putrefactive anaerobes in the intestine, and also a persistent and well marked indicanuria which is but slightly influenced by diet. The nervous symptoms are relatively prominent and appear early. They are emotional irritability and periods of mental depression; muscular or emotional activity soon induces a striking fatigue. Later the blood disturbances may appear. Although these patients have intervals of improvement that continue for months, on the whole the general tendency is downward. They become less robust and recuperate less promptly from every succeeding attack. They may run along for ten or fifteen years in a weak condition, with periods of slow improvement, and finally may present the picture of pernicious anemia. In others the nervous symptoms increase and the patients may need treatment in a sanitarium or in an asylum for mental diseases.

These various manifestations in different individuals may represent merely a different reaction to the same poison. Whether the nervous system or the blood shall bear the brunt of the attack is determined by the relative vulnerability of these tissues in that particular individual. It is noticed also that under treatment one group of symptoms may improve quite independently of the other. There is a more rapid advance of invalidism than is the case in either type 1 or 2 alone. Atrophy of the fat and muscle, and blood changes are present, and there may be also chronic parenchymatous changes in the kidneys and liver as a result of the constant toxic action.

SYMPTOMS OF AUTOINTOXICATION

The symptoms of intestinal toxemia are so many and varied that they may be outlined about as broadly as the field of practice and at the same time may be described in detail both locally in the abdomen and generally in the body. An attempt will be made to classify the symptoms so that a semblance of order will be presented.

The first symptom of which I shall speak is fatigue, which is quite conspicuous in these individuals. After engaging in moderate amounts of work or mental effort they become quite exhausted. Even on arising they feel tired, weak and lacking in pep. They may have a fairly high hemoglobin content and look quite well, yet, when subjected to any strain or extra effort the result may be disastrous.

The second symptom to which I wish to call your attention is anemia. It is noteworthy that many patients who suffer from severe intestinal putrefaction are distinctly anemic. The first change in the blood seems to be a decrease in its volume; then the hemoglobin falls somewhat and finally the cells themselves are reduced in number. The grade of anemia varies from a moderate secondary anemia to the most serious grades of the progressive pernicious form.

The third symptom is anorexia, such individuals rarely having a sharp appetite. They go along from day to day eating moderate amounts without much desire for food of any kind. They can get along with very little food and generally if they eat a normal amount they are likely to have symptoms of distress, and generally begin to eliminate certain articles of diet, so that after a time they are eating less than is required to maintain a fair state of health. Insomnia is also quite a characteristic symptom of intestinal putrefaction. Generally these individuals, who have eaten three meals a day, are considerably more toxic at the end of the day than in the morning, and it is not uncommon for them to lie awake in the early part of the night, getting to sleep when quite exhausted along toward the small hours of the morning, while in the morning they are generally quite sleepy and it is difficult for them to arise.

Another common symptom is the skin lesions such as eczema, urticaria, erythemia and acne. Not that all these cases of skin lesions are caused by autointoxication, but it is known that many cases of eczema, acne, urticaria, etc., can not successfully be managed until the intestinal disorders are corrected.

There is absolutely no doubt that a distinct relationship exists between mental and nervous conditions and these disturbances in the intestinal tract. While certain

nervous disorders may cause symptoms in the gastro-intestinal canal, by far the largest majority of these functional disorders are brought about the other way. The commonest of these is the so-called neurasthenia or nervous exhaustion.

The nervous system is almost invariably affected in whole or in part by chronic intestinal toxemia, and the symptoms in the nervous system may be all that the individual complains of. In every such case, an examination of the gastro-intestinal tract should be made, and also a search for the cause of the neurasthenia.

What patients describe as "rheumatism" consisting of pain without any apparent manifestation in joints or muscles, is common among these people. The pains may be transitory or last in the same location for days. They apparently are more myalgic or due to nerve involvement in the muscle planes or perhaps in the sheaths or capsular ligaments about the joints.

Other nervous symptoms often seen are brachial neuritis and neuralgias, various painful conditions in muscles of the back, sciatica, intractable types of headaches, particularly those of the cyclic form, and more or less instability in the vasomotor system such as produces mottled and swollen fingers and conditions resembling chilblains.

It is not uncommon to find pronounced symptoms in special parts of the body which cannot be overcome until an intestinal toxemia is properly corrected. E. g. various eye disorders such as choroiditis, iritis and various functional disturbances. Color blindness and spots in the vitreous are frequently due to intestinal conditions. Asthma, myocarditis, and arthritis deformans may be traced either directly or indirectly to intestinal toxemia.

It must be logical to anyone to consider that the large number of cases of acute and chronic disease of the appendix must have their origin in the bacteriology of the intestinal canal. My belief is that the main cause of chronic appendicitis is an intestinal toxemia, and this explains why it is that often after appendices are removed the symptoms continue as before because the removal of the appendix will not cure intestinal toxemia. There is a feeling nowadays that in a case of intestinal toxemia and diseased appendix, the removal of the appendix will have a beneficial effect upon the intestinal toxemia. This is true only in the minority of instances—the great majority of cases are the other way, namely, that the intestinal toxemia is primary and not removed by operation, and the removal of the appendix merely removes a resulting condition and not the actual cause.

Chronic colitis is another condition we hear much about and about all there is to chronic colitis, spastic constipation, atony of the colon, colonic stasis, etc., is merely the story of chronic intestinal toxemia of long standing and not treated in the proper manner. The same may be said of proctitis, hemorrhoids, and pruritis ani.

Time will not permit more than a mere mention of many other conditions which usually are treated as distinct entities but which in reality are the direct result of chronic intestinal toxemia. For example, hyperacidity and hypersecretion, gastric atony, pylorospasm, ileal stasis, adhesions (in some cases), ptosis, cholecystitis, colonic stasis, gastric and duodenal ulcer. And while the actual cause of cancer is still unknown, it is my opinion that when the whole subject of the etiology of cancer is reduced to its final analysis it will be found that chronic excessive intestinal toxemia is the cause, and that the prevention and cure of cancer will be based on the treatment of the preëxisting toxemia.

TREATMENT OF AUTOINTOXICATION

The treatment of intestinal toxemia can be considered under four or five divisions: the first and most important of which is osteopathic; the next most important treatment is dietetic; then comes hydrotherapy; medical; and lastly surgery. Some of these measures will be considered more to condemn than to recommend.

Let us first consider briefly the osteopathic treatment of this condition. I say briefly, not because I want to underestimate the value of osteopathic treatment, but because I feel that most osteopaths should know how to apply this treatment and have faith enough to apply it thoroughly. Practically all these patients will be found to have the characteristic straight spines—full in the lumbar region and anterior in the thoracic area, either with much rigidity and restricted motion or with a lack of muscular tonicity and excessive movement in all the joints. An effort should be made to normalize all the tissues and build up an unrestricted nerve and blood supply to the entire alimentary tract. I am a firm believer in traction in these cases. If properly applied traction cannot help but give wonderful results and it matters not whether it is done on the McManis table, the Gregory table or any other that will produce a separation of the articular facets throughout the thoracic and lumbar areas. It is needless to say that all specific lesions should be corrected and all tissue normalized. Just how often or how frequently the treatments should be given will depend on the individual case and the judgment of the physician in attendance.

The question of diet always has been and I presume will continue to be for some time to come a battleground to the medical profession with no very definite lines drawn and no able generals on either side. And if I were to attempt to outline a definite dietetic procedure, no matter what it might be, someone would quote some prominent "guesser" who is regarded as an authority, to show that I am all wrong. Dietitians are just at the threshold of food study. Our accredited food research workers are still going about in circles and assailing each other with the brickbats of denial. When these good men of our great institutions line up and give us some real facts even in partial agreement we may discover that some of the distasteful faddists have discovered some of the truth of dietetics by simple experimental methods that might be called empirical.

The importance of food as an etiologic factor in intestinal toxemia cannot be too strongly stressed. The character of the food and the failure of the digestive system to handle it successfully cause the various types of gastritis, enteritis, colitis, sigmoiditis, and proctitis. Here is a good place to emphasize again that all rectal diseases, such as pruritis ani, ulcers, fissures, hemorrhoids, cryptitis, and even fistulæ are local symptoms of trouble higher up and in order to restore this area to permanent health the small intestine and colon must be restored to a normal healthy condition.

Without going into details about dietetics suffice it to say I believe all dietitians are agreed that the body requires normal, unrefined and undevitalized foods. Without any fear of successful contradiction I am prepared to make the statement that the worst enemy of the human race today are refined and devitalized foods and the next is our excessive meat diet. It is impossible for us to build up and maintain strong, healthy and vigorous bodies unless we supply our bodies with the necessary chemicals, and how are these to be provided except through the foods we eat?

Let us consider for a moment the foods that make up the diets in average American homes and in practically all cafes. For breakfast we usually find pancakes or waffles made from refined white flour from which all the vitamin or mineral salts have been very carefully removed. These are served with syrup which is made from refined sugar which has no food value. Probably the only redeeming feature is that a small amount of butter is also served, but quite frequently this is artificial and has no mineral salts. Or if we don't find pancakes and waffles we are likely to find biscuits and ham and fried potatoes, all of which have a tendency to clog the system.

For the noon and evening meals we usually find the diet equally as bad, consisting of more meat, white potatoes, which contain no mineral salts, white bread and some pastry, most of which acts more as a poison than a food. So to me it seems that the small measure of health which we do possess is granted by mother Nature who permits us to be healthy in spite of our indiscretions in diet.

Regarding the hydrotherapeutic treatment of autointoxication we likewise find widely divergent views. On the one hand we find those who claim great benefits from stomach and intestinal lavage and high colonic irrigations. These people have gone to great expense to equip themselves with elaborate equipment for giving the Schellburg treatment and gastric lavage. Various antiseptic preparations are used in these irrigations with the hope of destroying the bacteria that are present.

In contrast to these people there are those who hold the view that the results obtained by this method of treatment are very largely imaginary if not entirely negative. Quoting Bassler of New York we find the following: "What has been said in connection with transintestinal

lavage should manifestly hold more true in colonic irrigation. Numbers of men that I know of are engaged in irrigating the colon in instances of colitis, intestinal toxemia, etc., and I have yet to see the case after an extensive study of this method that has been benefited by it. There are not a few individuals who believe that they have been benefited, the effect being entirely one of purgation and mental suggestion and not due to actual curative benefit brought about by the method. Of course an emptying of the intestinal canal has been accomplished but this can be done quite as well by any patient using an enema, simply lying on the left side or perhaps in the knee chest position. No physician, nurse, high rectal tube, or any definite solution employed is worthy of consideration in these cases as a method of treating intestinal toxemia. It does not pay for the time and effort the physician puts in, nor the patient for the amount they have to pay for the treatment.

"In my work I do not use any form of rectal irrigation, either accumulative or by recurrent tube. It is my belief that the human intestinal canal is not made for the purpose of withstanding large quantities of water. Many times distinct harm is done, and such results as may be brought about by a benefit in the pathology of the gut are so few that they are not worth the while, and could quite as well—in fact, much better—be accomplished by means of an anti-constipation diet, with perhaps the addition of slight purgative assistance which would assure the bowels moving normally."

Used as a drink, water unquestionably has great beneficial effect. Data is on hand which indicates a marked decrease in the output of bacteria in the feces when normal persons were caused to increase their water ingestion to four quarts a day, the water being taken with the meals. That intestinal putrefaction was also diminished under these conditions is indicated by an accompanying decrease in the urinary indican values during the interval of high water intake. However, I do not wish to be understood to advocate that water-drinking alone will cure intestinal toxemia.

As to the medical treatment of intestinal toxemia one need go no further than a few of the standard texts to find that the leading medical authorities have no faith in drugs. Quoting one prominent medical writer we find the following: "Manifestly, it is most unwise to expect to change the status of affairs in the intestinal canal by means of any medicinal substances by mouth. This entire method and line of endeavor should be given up as unscientific and impractical. Such benefits as are brought about by the use of the so-called intestinal antiseptics, singly or in combination are due entirely to the effect upon the patient's mind, and not to biochemical change that these drugs bring about.

"The use of vegetable purgatives, particularly the drastic vegetable purgatives should be discouraged in cases of intestinal toxemia. It is my observation that they do more harm than good, and while patients may feel relieved after their bowels have moved, in the end they are more toxic than they were before beginning with the drugs."

Concerning the surgical treatment of intestinal toxemia it needs only a fair amount of reasoning to decide that this condition cannot successfully be handled in that manner. I am satisfied that the surgical therapy of drainage which would have to do with pus or the removal of diseased tissue are surgical fundamentals that should be continued. But, these conditions of toxemia are a biologic state and one cannot change the biology of the intestinal canal in satisfactory ways by changing the fecal current. To remove an appendix, or to relieve a kink which is causing a distinct obstruction, may in individual instances be a justifiable procedure. But the removal of the colon, or an anastomosing where there is not a distinct intestinal obstruction is bad surgical procedure. In a word, for the treatment of intestinal toxemia in all stages, surgical procedure is not indicated; if the definite obstruction exists, yes, but for the ordinary case, no. There may be a resulting pathology in the appendix, gallbladder, etc., that requires surgery, but for the toxemia or such stasis that is not due to definite obstruction, never.

Help to make 1930 "the best yet" in osteopathic history by attending the Philadelphia Convention.

Business Efficiency

THE EFFICIENT OSTEOPATH

C. C. REID, D.O.
Denver

XXXIV

RAISING PRICES AND SPECIAL FEES

Necessarily a course in efficiency must aim to help the general run of doctors in a great variety of situations. A physician often locates in a community that has been spoiled to some extent by some "cheap skate" who was satisfied with a low standard of living, who had no ambition for anything better or hadn't enough courage to charge for his services sufficient to get the necessities and conveniences of life which he and his family should have, or by someone without vision of a real career and unable to visualize himself in better circumstances.

I have known of osteopathic physicians in small towns to be treating patients at a regular price of one dollar a treatment. Even since the War, I have known it to be done in some instances for a dollar and a half a treatment. Doctors who are giving their treatments at this rate are usually migratory. They have an inferiority complex with no idea of high standards of living. They can live very cheaply in the smaller communities. They have a notion, which is usually true, that their treatment is worthless or of small value. It is the only thing they know by which they can make a living, hence they migrate from one small town to another staying only a few months or years in one location.

Small Towns will Support a Doctor Well.—

Small towns of five hundred to a thousand inhabitants with the adjoining country, will support an osteopath on a good basis, if he is competent, has faith in himself and has patience and is not afraid to work. He can take all varieties of practice and by making good he can charge reasonable prices and make himself one of the most influential and well-to-do men in the community.

Numbers of our young men do not care for city life or city practice. They prefer the small towns. They go there from choice. In some ways a small town has its advantages: the overhead is very much less; there is a higher average degree of honesty; there is a better chance to build the quiet substantial kind of character; it is a safer place for raising a family; it is less enervating; there are plenty of true loyal friendships to be formed and the pace is not so strenuous.

Ten or fifteen years spent in a place like this under proper conditions of thrift will put one further ahead financially. In many instances, many of these smaller towns have been spoiled for osteopathy by a cheap brand, by quackery, misrepresentations of methods or unqualified practitioners. The price has been set too low and osteopathy has been cheapened and degraded in the minds of many of the people. These communities are often well-to-do and can easily support an osteopath and would be glad to do so if a real one would come and do expert work.

Raising Prices.—

I have known some competent physicians to locate in just such communities. They went with a desire to live there, but they had ambitions and wanted to produce ideal relations, if possible. They found it necessary to raise prices over what the doctor there was doing, or the one who had come and gone had charged, in order to get started. These doctors, in most instances, began with the old price that had been established, a dollar and a half per treatment. After a year or two they discovered that they were getting nowhere financially. Their ideals were not being realized. It was hard to keep up their overhead, to pay their debts, to get the desirable things for their families and live on a basis that their ideals and standards deserved.

After working this length of time in a community just how to bring about a raise in prices becomes a difficult and embarrassing question. A public announcement produces more or less shock to patrons. It might cause considerable antagonism. It might lay them open to charges of commercialism or gullibility. All these they want to avoid and yet they realize that their prices must come up some in order that they may get their feet planted on firm foundations.

Methods of Raising Prices.—

City patients who have the same doctor are seldom acquainted; they do not meet frequently as do those in small towns. The problem is not quite the same, though some principles obtain alike for the city and small town. The following general suggestions will apply and may help according to the circumstances in which the doctor must labor:

1. A letter might be written to all the old patrons explaining the economic necessity that prices be raised to some extent. The letter should announce that after a certain date, say two or three months ahead, his prices will be so-and-so and announce the prices of treatments in the office and the additional charge for outside calls in the town, and mileage for the country. Anything that is postponed does not produce the same stress in the minds of individuals. The letter might state what the prices are to be for regular treatment, but since they are old patients, the time for them will be extended for the three-month period. It should be further stated that the character of treatment necessary will alter prices in various forms of surgery and treatment.

2. New patients coming in often would not know what the prices had been. The increased rate would be given them from the start. New patients who know what the old prices were can still be told that the prices have been raised, if they bring up the subject, and if not, the new prices alone could be mentioned.

Old patients who send in some of their friends after receiving the letter stating the rise in prices would tell their friends, if they told them anything, what the new prices were. In this way the gradual transit from a lower price to a higher one can be brought about without any serious trouble.

3. The following are suggestions for the letter:

(1) Appreciation would be expressed for their past patronage and their friendship. (2) Thanks must be given for the honor of being their physician. (3) Some expression as to being glad to coöperate with them as their health engineer and the future which you hope will always be satisfactory. (4) Expression as to study, progress, postgraduate and being able to serve more expertly year after year. (5) Then the explanation that the cost of living has considerably increased, necessitating a slight rise in fees to meet the added requirements. (6) Then quote the new fees.

Special Prices.—

Many doctors do one particular line of work and necessarily have prices for their work which are practically standardized for that one thing. Some of our doctors in the large cities get twenty-five dollars for examination, and ten dollars for each treatment. The character of work, the overhead, the standards of living which they must meet justify these prices in some places. Their clientele consists of patients who are quite able to pay such prices. The average osteopath over the country, however, does not walk in that class, nor should he. It is essential from the standpoint of his work, location or clientele, in fact, it cannot exist in most locations.

The general practician in the small communities can boost his income considerably by having special prices for particular types of work. We will suppose that he is getting from two to three dollars for his regular treatments. For chronic cases that he checks over carefully, we say he should have five dollars at least for his examination, then added fees for laboratory work. One or two dollars for urinalysis, blood count complete—three to five dollars, differential white count—two to three dollars, blood coagulation—fifty cents to a dollar, hemoglobin test—fifty cents to a dollar, sputum examination—three to five dollars. If he has x-ray to help in diagnosis, of course he would charge extra for it. His laboratory work can be done at odd times as a rule. This makes it possible for him to do something profitable when he would not be making calls and doing nothing in the office.

A general practitioner in the field might do some minor surgical work to some extent for which he would get special fees. He might learn to remove adhesions in the nasopharynx and fossa Rosenmüller by finger surgery. He might have a special form of technic for setting sacro-iliac lesions and using strapping to keep them in place, for which he would command special fees. He might take postgraduate work and learn ambulant proctology. Much of this can be done to good advantage.

Colleges

LOS ANGELES

The student body is looking forward to the opening of basketball season. This will help foster a greater school spirit and will provide a beneficial diversion from studies. The new sub-freshman class contains much husky material which will undoubtedly make the seasons more interesting. There will be intercollegiate, interclass and interfraternity contests.

Dr. Curtis E. Decker's series of lectures on Psychology of Sex is proving even more popular than had been expected. The largest room in the college is not sufficient to admit all those wishing to attend. Students from nearby colleges, including the University of Southern California Medical School, are also attending these lectures. It is unfortunate that our Auditorium building is not completed and available for this present use.

We have just completed the final examinations of the first trimester of the school year. This has resulted in the elimination of several of the new students who lacked a serious attitude toward their work. However, the large majority of the students have made the grade so far and are still with us, with more interest in osteopathy than before.

DES MOINES STILL

The Christmas vacation fractured the reporter's train of thought so there is little to report from the college for the past month. The several days preceding the holiday recess was as usual punctuated with numerous calls by a representative of the Western Union and the usual crop of seriously ill relatives ripened at the proper time. Flivvers and other means of transportation were hurriedly given the once over and granted an extra gallon of oil and good bye. The best part of the early leaving was that those who expected to get home early were held up in various parts of the country by snow and storms that did not touch Iowa and these same parties have had very little to say about the weather since their return.

Several parties were given before the rush home and it is reported that one faculty member made two frat dances the same night. It is supposed that he got thrown out of the first one. That could be a reason.

The faculty spent the season as dignified teachers should. Ava Johnson ate too much turkey and has been suffering a digestive indisposition since. Dr. C. W. seems to have improved a great deal during the vacation and turkey was very likely what he needed. The remaining members look as if they had gained an extra pound or two and are all back with a determination to end the term's work with a rush of final lectures and quizzes.

The Senior Banquet sponsored by the college is billed for the night of January 16. This same week will see the usual number of senior farewells and dances in honor of the graduating members. Graduation is to be held on the 23rd and the following Monday will see the opening of a new term, another page in the history of the college.

Prospects for the new class are encouraging. The group entering in January is never large but indications are this year that it will exceed those of previous years.

KANSAS CITY

A motion picture film of more than ordinary interest will be shown to members of the student body and the profession by the Kansas City College on Thursday evening, February 13. This film, "The Cultivation of Living Tissue," has been produced by Dr. Ronald G. Canti of St. Bartholomew's Hospital, London, for the British Empire Cancer Campaign. Through the co-operation of the Extension Division of the University of Kansas we are enabled to secure this film for local showing.

It is hoped that we will be able to continue this plan of presenting worth while films of therapeutic and scientific interest at regular intervals throughout the school year whenever they are available. No admission charge is made and it is hoped that a considerable number of the profession from the surrounding territory will plan to be with us February 13. We assure you that it will be well worth your while.

The new edition of the College catalog is nearly ready for the press. In it will be found definite statements re-

garding the material covered in each subject of the curriculum and the number of hours devoted to each subject. It is hoped to place a copy of the catalog in the hands of each member of the profession. Is your name on our mailing list of the *College Journal?* If not, a letter or a card to us will place it there. Let us hear from you who are not now receiving it.

Matriculations for the mid year class are coming in slowly but surely. We still have room for a number of desirable students. We hope those of you who know prospective students ready to enter college will not forget to recommend the Kansas City College.

The College Clinic, which has long been well and favorably known for the variety and wealth of material it supplied, has fairly outdone itself during the past year. Under the able direction of Dr. Yale Castlio the previous high record per month was exceeded five times during the past year and in no single month did the record fall below the corresponding month of the preceding year. It is encouraging to note the growth in the acute out-clinic department. Here the student acquires an experience calculated to prepare him to conduct a general practice; and we are pleased to report a substantial increase in the number of acutely ill patients who have called upon us for this type of service.

The Osma club, open to Masons and DeMolays of the student body and faculty has been reorganized and is functioning in a satisfactory manner. J. Kenneth Coles of the junior class is president, Lloyd W. Simmons, sophomore, secretary-treasurer; Dr. C. A. Povlovich, faculty advisor. The purpose of the club is to foster a finer spirit of fellowship and co-operation among the members of the student body and faculty and so eliminate the petty misunderstandings that arise between the various organizations of the school.

With the holidays a thing of the past and at this time only a fond remembrance, the stern necessity of meeting the challenge of mid-year exams looms in the near future. The recent flurry in the book sales and the increased demand for Goepp's State Board• show that students, like birds, have anticipated the coming bad weather and are making adequate preparations. Examinations will be given over a three-day period starting Wednesday, January 22. It is hoped that no casualties will result, either to the examiners or the examined. The day of reckoning is near at hand.

PHILADELPHIA COLLEGE OF OSTEOPATHY

The second meeting of the faculty and hospital staff in the new building was held on Tuesday evening, December 10. The scheduled program for this meeting was furnished by the eye, ear, nose and throat department. Dr. Galbreath presented a very interesting picture of the anatomy and pathology of the tonsils, which included a discussion of local as compared with general anesthesia for tonsillectomy. Dr. Leuzinger's description of an interesting and unusual case of tumor in the throat stimulated considerable discussion as to its exact nature and the treatment indicated. Dr. Tinges' report of his work with the students in this department raised the question of more time for this and other specialties and opened up the subject of just what should be expected of the general practitioner.

After this program Dean Holden presented several matters to the faculty regarding fraternities, State board examinations, preliminary education, and other scholastic matters. Dr. Green, registrar, reported statistics for preliminary education for prospective students. He also presented a motion that our college disapprove the study of materia medica and pharmacology as part of the recommended curriculum for osteopathic colleges. This resolution was adopted by unanimous vote.

Thursday, December 19, was a banner day at Philadelphia. Not only was it the occasion of a spirited gathering to give vent to Christmas tidings prior to breaking up for the holidays, but signally it was a big moment in college affairs, for a distinguished visitor was in our midst. Mr. Childs, to whom we owe the inspiration as well as the material backing of our new building program, was our guest. Introduced by his personal friend, Dr. C. D. B. Balbirnie, head of therapeutics, Mr. Childs held his audience in silent grip. Extemporizing, he stressed the idea of watchfulness in an individual's daily actions, showing by concrete examples the value of being watchful as related to success.

Music played a prominent part in the Christmas exercises. Song sheets with Christmas carols were distributed. The cheer leaders led the singing of songs with the Alma Mater. Dr. Champion presented Mr. Turkington, who delighted the audience with his masterly rendition of three Irish songs.

On December 7 P. C. O. basketball five defeated the University of Delaware in a fast game of 25 to 18. Osteopathy started off in great style and after fifteen minutes of play held an 11 to 3 lead. On the next play, Davis of Osteopathy was caught in a scrimmage and received a broken ankle. This injury took the pep out of the osteopaths for the rest of the period. University of Delaware cut down the lead and the half ended with Osteopathy trailing 13 to 12. In the second half, Toomey put Osteopathy in the lead when he scored a pretty shot from the center of the floor in the first few minutes of the final period and from this time on Osteopathy was never headed.

Staging one of the most sensational rallies witnessed on the collegiate basketball court, the Philadelphia defeated Pennsylvania Military College, December 14 at Chester, 43 to 38.

Great satisfaction in the showing of Osteopathy's team has been expressed, not only by Coach Secor and members of the athletic council of the college, but also by the student body and other rooters for the team.

State and Divisional News

OSTEOPATHIC CONVENTIONS

Announcements

American Osteopathic Association and allied organizations, Philadelphia, week of July 7.

American Osteopathic Society of Ophthalmology and Otolaryngology, Philadelphia, week of June 30.

American College of Osteopathic Surgeons, Philadelphia, first week in October.

California State Convention, San Diego, May 26-29.

Eastern Osteopathic Convention, New York City, March 21, 22.

Indiana State Convention, Fort Wayne, October 22, 23.

Kansas State Convention, Topeka, in the fall.

Michigan State Convention, Detroit, in the fall.

New York State Convention, Syracuse, October.

Texas State Convention, San Antonio, April 22-24.

CALIFORNIA

East Bay and San Francisco Societies

Dr. Sydney Kinnear Smith, Oakland, addressed the monthly joint meeting of the East Bay and the San Francisco Osteopathic Societies in Oakland, December 16, on the subject, "Everyday Problems in Psychiatry."

Hollywood Osteopathic Physicians' and Surgeons' Club

Dr. Lucius B. Faires was scheduled to address the Hollywood Osteopathic Physicians' and Surgeons' Club at its January 7 meeting.

Long Beach Osteopathic Society

Dr. Edward T. Abbott, director of clinics at the College of Osteopathic Physicians and Surgeons, spoke on "Surgery Prevention" before the Long Beach Society, December 19. His talk was illustrated with two reels of motion pictures used in instruction at the college. He is quoted as saying that a large majority of the cases which require surgery could have been successfully handled by nonsurgical methods if a complete diagnosis had been made.

Los Angeles Osteopathic Society

Dr. Dayton Turney, pathologist at the Los Angeles County Hospital, Unit No. 2, was scheduled to address the Los Angeles Osteopathic Society December 9.

Orange County Osteopathic Society

Mr. Roy Davis, chief of the Fullerton fire department, spoke on first aid methods at a meeting of the Orange County Osteopathic Society at Fullerton, December 12. A new inhalator and resuscitator was demonstrated.

Pasadena Osteopathic Society

Drs. Carl F. Grunewald and Robert W. Reitzell discussed cancer at a meeting of the Pasadena society, December 19.

Riverside District Osteopathic Society

Dr. Louis C. Chandler, Los Angeles, addressed the Riverside District Society at Redlands, December 12.

San Diego Osteopathic Society

At a meeting early in January, tentative plans were outlined for the osteopathic state convention to be held in San Diego, May 26-29. At a meeting on December 6, Dr. Evangeline N. Percival, Los Angeles, president of the state society, spoke on "Endocrine Disorders of Childhood," and Dr. Edward T. Abbott, Los Angeles, presented a surgical moving picture.

COLORADO

State Society

The program of the January meeting, held at Loveland on the 11th, was as follows:

Osteopathy—Dr. George C. Wilke.

Electric Tonsil Fulguration—Dr. C. C. Reid.

Diet—Dr. R. R. Daniels.

The New Osteopathic Hospital—Dr. Howard E. Lamb.

How We're Going to Meet the Decision of the Supreme Court—Dr. R. W. E. Newton, followed by general discussion of the problem.

FLORIDA

Dade County Osteopathic Society

Dr. L. E. Gingerich, secretary, reports that the January meeting of the Dade County society was held January 2. Drs. A. J. and Cora Belle Molyneux, Jersey City, were visitors. Drs. Molyneux and C. G. Tillman discussed the laws of New Jersey and Florida from a comparative standpoint. Dr. L. E. Gingerich spoke on "Osteopathy in Athletic Injuries." Dr. Gingerich has cared for the Miami high school football team, which won southern and eastern championships. Dr. A. L. Evans, the new president, delivered an address.

ILLINOIS

Chicago Osteopathic Society

The Chicago College of Osteopathy continues to provide programs for the Chicago society, different departments being emphasized at different meetings. The department of diagnosis had charge of the January meeting on the 2nd.

Osteopathic Women's Club of Chicago

The Osteopathic Womens' Club of Chicago has long held its dinner meetings on the same evening as the Chicago Osteopathic Society. The date has now been changed to the third Thursday of each month, with a 6:30 dinner at the Eleanor Club on North State street. Dr. Bingham Dai of Shanghai, China, spoke on "Opium and Dangerous Drugs" at the January meeting.

Chicago—North Shore Osteopathic Society

December and January speakers were as follows:

December 6—Dr. Russell R. Peckham, "Fibrositis."

December 20—Dr. George W. MacGregor, "Diet as a Cause of Disease."

January 3—Dr. Don Cabot McCowan, "Ambulant Proctology."

January 17—Dr. Anna Mary Mills, "Psychoanalysis."

INDIANA

St. Joseph Valley Osteopathic Association

Dr. C. K. Parker, South Bend, secretary-treasurer of the St. Joseph Valley Osteopathic Association, including parts of Indiana and Michigan, reports that at the December meeting Dr. J. H. Hagen, South Bend, addressed the organization.

Officers were elected as follows: President, Dr. L. A. Rausch, South Bend; vice president, Dr. H. L. Landis, Elkhart; secretary-treasurer, Dr. C. K. Parker, re-elected. President Rausch appointed the following committees:

Program—Dr. E. J. Summers; Dr. C. P. Burns, St. Joseph, Mich.; Dr. E. O. Peterson, La Porte, Ind., and Dr. John M. Kauffman, Goshen, Ind.

Membership—Dr. B. D. Coon; Dr. John B. Hall, Kendallville, Ind.; Dr. H. L. Landis, Elkhart, Ind., and Dr. C. K. Parker.

Hospitalization—Dr. H. E. Forster; Dr. M. W. Beemer, Three Rivers, Mich.; Dr. E. B. Porter and Dr. C. H. O'Dell.

Education—Dr. L. E. Ramsdell, La Porte, Ind.; Dr. J. H. Egan and Dr. Samuel Borough.

Conventions—Dr. A. Cleland, Dr. S. N. Summers and Dr. C. C. Wedel.

Osteopathic Women's Club—Dr. Lydia N. Copper, Dr. Lova M. Borough and Dr. Leona Stevens Rausch.

The January meeting was held in South Bend on the 9th. Reports from committees and the discussion of professional affairs featured the meeting.

IOWA

Fifth District Osteopathic Society

Dr. A. D. Becker, vice president of the Kirksville College of Osteopathy and Surgery, conducted a heart and lung clinic at the meeting of the fifth district in Sioux City some weeks ago.

KANSAS

Arkansas Valley Osteopathic Society

The December meeting was held on the 19th in the office of Dr. L. O. Martin, Dodge City. Dr. E. S. Adams, Dodge City, spoke on "Osteopathic Technic of the Lumbar and Sacral Areas," with demonstrations. This was followed by a general round table discussion.—Glenn D. Jewett, Secretary.

Eastern District Osteopathic Society

An organizational meeting of the Eastern Kansas Association of Osteopathic Physicians and Surgeons was held at Ottawa, December 3. Representatives were present from Lawrence, Emporia, Baldwin, Garnett, Colony, Humboldt, Iola, Osage City and Ottawa. Dr. Bertha West Held of Ottawa gave an address of welcome and a number of others made short talks. After dinner the group adjourned to the office of Dr. H. F. Hutchinson, where a business meeting was held with officers elected as follows: President, Dr. F. M. Eoff, Ottawa; vice president, Dr. Gladdis Armor, Emporia; secretary, Dr. Ira F. Kerwood, Iola; treasurer, Dr. Bertha West Held, Ottawa.

Southern Kansas Osteopathic Society

A meeting of the Southern Kansas Osteopathic Society was held in Caldwell about December 12. Drs. Lloyd W. Mitchell, Anthony, and Raymond Wallace, Caldwell, were speakers.

Southwest Kansas Osteopathic Society

The November meeting was held with Dr. J. G. Jewett, Kiowa, on the 14th. Dr. Jewett read a paper on "Diphtheria."

Verdigris Valley Osteopathic Association

On December 5 Dr. Iva Hancock, Independence, addressed the Verdigris Valley Osteopathic Association at Nowata, Okla. Officers were elected as follows: President, Dr. W. L. Stevick, Nowata, Okla.; vice president, Dr. J. C. Logsden, Cherryvale; secretary, Dr. Iva Hancock, Independence.

LOUISIANA

Monroe Osteopathic Society

A preliminary organization meeting was held at the office of Dr. Minnie L. Faulk, Monroe, on December 17, and a permanent organization formed at the same place, December 23. By unanimous vote, the services of the association were offered to the welfare association to help in caring for the sick of the city who may need service but are unable to pay for it. Officers were elected as follows: President, Dr. Leo Vandegaer; vice president, Dr. B. W. Culp; secretary-treasurer, Dr. Minnie I. Faulk; councillor, Dr. Murray Graves.

MICHIGAN

Lyceum Courts

Dr. Albert C. Johnson, osteopathic surgeon and obstetrician of the Roscoe Clinical Group at Cleveland, was the second speaker routed through Michigan recently by the institute lyceum organization. Dr. Johnson's subject was "Differential Diagnosis of Acute Infections of the Abdomen."

Kalamazoo Osteopathic Society

Dr. A. G. Hildreth, Macon, Missouri, addressed the Kalamazoo City Association of Osteopathic Physicians, December 31.

Oakland County Osteopathic Society

Dr. S. J. Nye, Pontiac, presided at the January meeting of the Oakland County Osteopathic Society, on the 2nd, in the absence of the president, Dr. G. R. Norton, Birmingham. Dr. H. J. Brown, Detroit, discussed and demonstrated modern x-ray methods.

MISSOURI

Northeast Missouri Osteopathic Association

The December meeting of the Northeast Missouri Osteopathic Association was held in Hannibal with addresses by Drs. Charles E. Still, George M. Laughlin and E. C. Petermeyer, of the Kirksville College of Osteopathy and Surgery.

NEBRASKA

Central District Osteopathic Society

Dr. N. A. Zuspan, Grand Island, secretary, reports that the December meeting was held on the 11th, with President Dr. W. H. Baker, Aurora, presiding. Dr. I. D. Gartrell, Clay Center, spoke on "The Etiology and Treatment of Gallbladder Diseases." The association voted to support the state president, Dr. H. I. Magoun, Scottsbluff, in securing an osteopathic physician of the highest quality from out of the state to make a circuit of the district conventions.

North Platte Osteopathic Association

The January meeting of the North Platte Osteopathic Association was held in Torrington, Wyoming, on the 5th.

NEW JERSEY

State Society

Drs. L. Mason Beeman and H. Van Arsdale Hillman, New York City, were scheduled to address the January meeting at Elizabeth on the 11th.

OHIO

New State Secretary

Dr. J. Waltemeyer Keckler, 1001 Huron Road, Cleveland, has been selected secretary of the Ohio Society, to fill the vacancy caused by the death of Dr. Lawrence T. Hess.

Cincinnati Osteopathic Society

The December meeting was held at Hamilton. Dr. Warren Wood Custis, Dayton, spoke on "Upper Dorsal and Lower Cervical Technic."

Cleveland District

Dr. H. L. Samblanet, Canton, was scheduled to be the principal speaker at the Cleveland District meeting in Dayton, January 14.

Northwestern Ohio Osteopathic Society

Dr. M. A. Prudden reports that Drs. Vorhees and Sheppard of the Roscoe Clinical Group at Cleveland, conducted a surgical clinic at Green Springs Sanitarium, Green Springs, at the meeting of the Northwestern Ohio Osteopathic Society, December 12.

Warren Osteopathic Association

The Warren Osteopathic Association met on December 11. Prominent among its activities were preparations for the holiday party to be given on December 27 for students in osteopathic colleges who were home for the holidays, and prospective students.

The party was held as scheduled with Dr. E. C. White presiding. Students from the Kirksville and the Des Moines colleges spoke on student life in those places, and Dr. White discussed osteopathy from the standpoint of actual practice. A dozen prospective students attended.

OKLAHOMA

Central Osteopathic Association

Drs. F. A. Englehart, Oklahoma City, and Sam Sparks, Wewoka, president of the association, were speakers at the December meeting, held in Wynnewood.

PENNSYLVANIA

Allegheny County Osteopathic Society

Dr. Walter P. Spill, secretary-treasurer, reports the election of the following officers of the Allegheny County Osteopathic Society, at the January meeting: President, Dr. Frank L. Goehring; vice president, Dr. Charles E. Young; secretary-treasurer, Dr. Walter P. Spill, all of Pittsburgh.

Lehigh Valley Osteopathic Society

Dr. A. G. Walmsley, Bethlehem, spoke on "Pneumonia —The King of Diseases," at the December meeting of the Lehigh Valley society at Allentown, December 19.

Philadelphia County Osteopathic Society

"Advanced Methods of Combating Tonsillitis" was the topic for a symposium to be conducted by the Philadelphia County Osteopathic Society on December 19. Drs. William Otis Galbreath and C. Paul Snyder of the Philadelphia College and Hospital of Osteopathy, were to lead the discussion. Members of the Southern New Jersey Osteopathic Society were invited.

Osteopathic Society for the Advancement of Electrothermic Therapy

There has recently been organized in the osteopathic profession of Philadelphia and adjacent territory, the Osteopathic Society for the Advancement of Electrothermic Therapy. Meetings are held twice a month at the new college building. The officers are as follows: President, Dr. William J. Furey; vice president, Dr. C. Paul Snyder; secretary, Dr. Ernest A. Johnson; treasurer, Dr. John H. Bailey; director of clinics, Dr. George W. Hales.

RHODE ISLAND

State Society

The December meeting of the Rhode Island society was held on the 12th. Dr. Howard V. S. Mott, secretary, reports that Dr. John A. MacDonald, Boston, discussed and demonstrated osteopathic technic for the general practitioner, and Dr. Charles Wakeling, Boston, spoke on "Osteopathic Treatment in Nervous and Mental Disorders" and cited case histories.

TEXAS

Dallas Osteopathic Society

The December meeting was addressed by Dr. M. A. Schlack, who made a report on the work of the City Health Board, and by Dr. A. O. Scharff, who recently returned from three years' practice in Honolulu.

Lower Rio Grande Valley Osteopathic Association

The December meeting of the Lower Rio Grande Valley Osteopathic Association was held at the offices of Drs. Davis and Davis, McAllen. Dr. W. E. Gorrell, Corpus Christi, spoke on "Surgical Diagnosis."

WASHINGTON

King County Osteopathic Society

The December meeting of the King County Osteopathic Society was addressed by Drs. W. Othur Hillery, A. B. Palmer and Charles A. Roberts.

Pierce County Osteopathic Society

Members of the Pierce County Osteopathic Society and their wives were entertained at a dinner given by the Western Washington Optometric Society and their wives at Tacoma, December 14. This was the second of a series of joint meetings held by the two societies. Dr. Ames, Seattle, president of the optometric organization, presided, and Dr. H. V. Hoover, president of the Pierce County Osteopathic Society, spoke on behalf of the members of his group. Dr. Warner, the principal speaker of the evening, gave a historical review of optometry, and discussed the educational requirements of his profession.

Yakima Valley Osteopathic Society

Dr. T. A. McKay, ear, nose and throat specialist of Tocamo, demonstrated his work in the Myers General hospital at Yakima, December 14. Dr. McKay delivered an address on "Diagnosis and Treatment of Ear, Nose and Throat Disorders." The clinic continued December 15.

WISCONSIN

Madison District

Dr. Wiley B. Truax, Milwaukee, had a paper on "Atrophic Arthritis" at the December meeting of the Madison District Osteopathic Society. Dr. O. W. Lorch, Fort Atkinson, retiring president, gave a report of the year's work of the association. Officers were elected as follows: President, Dr. C. R. Sannes; vice president, Dr. E. K. Gray; secretary-treasurer, Dr. Leslie Housel.

CANADA

British Columbia Osteopathic Association

Dr. Milton P. Thorpe, secretary, reports that the British Columbia Osteopathic Association held its twenty-first annual meeting December 26. Officers were elected as follows: President, Dr. J. T. Atkinson, Vancouver; vice president, Dr. V. B. Taylor, Victoria; secretary, Dr. M. P. Thorpe, Vancouver; treasurer, Dr. G. B. Atkinson, Vancouver.

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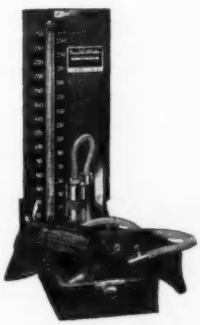

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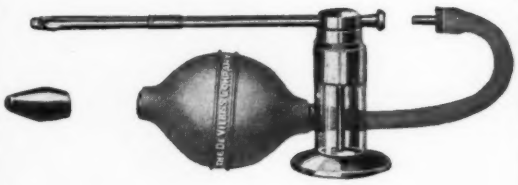

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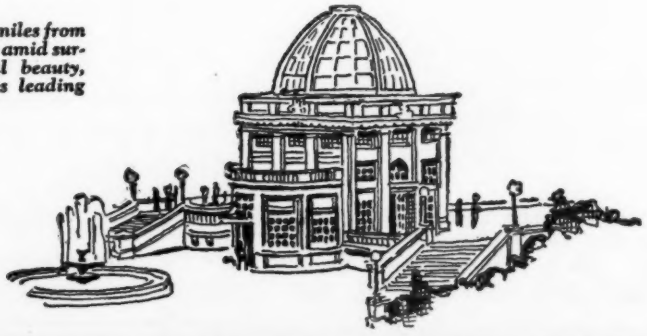

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The Calendar

For Your Reference

SPRING SEMESTER 1930

January 27, 1930, to May 30, 1930

Jan. 27, Monday. Registration in college.

Jan. 28, Tuesday. Classes begin at 8 a. m.

Feb. 10, Monday. Registration ceases for all students.

Feb. 24, Monday. Last day for making changes in program for semester.

April 18, 19, 20, 21, Easter Vacation.

May 26, Monday to May 29, Thursday. Final examinations for semester.

May 30, Friday. Commencement exercises.

SUMMER COLLEGE COURSES

June 2, Monday. Registration in Summer College Courses.

June 2, Monday. Registration in College for Post-Graduate Course. No fees are required for this course.

June 13, Saturday. Post-Graduate course ends.

July 10, Friday. Final examinations in Summer College Courses.

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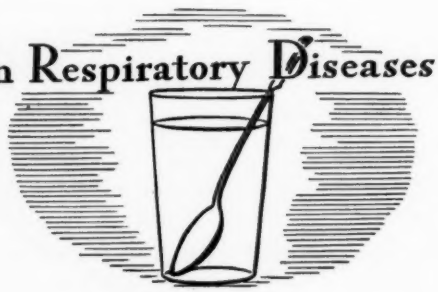

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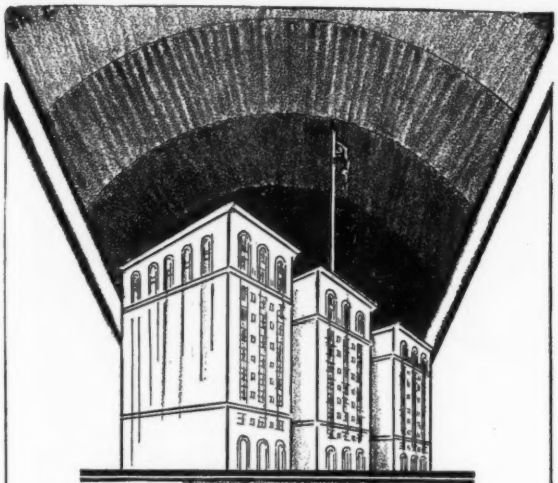

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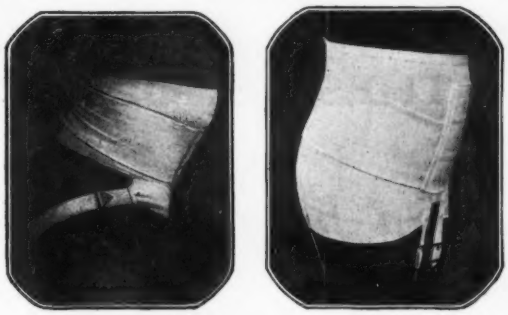

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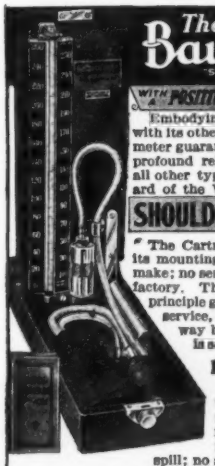

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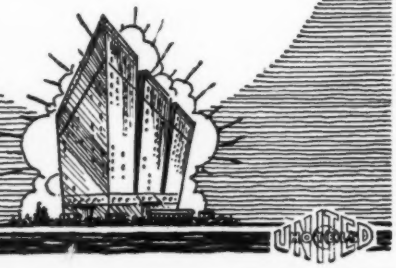

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Harth, C. P., 512-13 Palace Bldg., Tulsa.

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Morris, F. R., Bashline-Rossman Hospital, Grove City.
Wadkins, J. A., Bashline-Rossman Hospital, Grove City.
Rickolt, Charlie S. W., 114 S. Main St., Muncy.
Maginnis, Thelma G., Mount Holly Springs.
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Book Notices

ACUTE INFECTIOUS DISEASES. By Jay Frank Schamberg, A.B., M.D., Professor of Dermatology and Syphilology in the Graduate School of Medicine, University of Pennsylvania, and John A. Kolmer, M.Sc., M.D., Dr.P.H., Professor of Pathology and Bacteriology in the Graduate School of Medicine of the University of Pennsylvania. Second edition. Cloth. Pp. 888, with 188 illustrations. Price, $10 net. Lea & Febiger, S. Washington Square, Philadelphia, Pa., 1928.

The book is not as comprehensive as the title indicates, the infectious diseases considered being vaccinia, smallpox, chickenpox, scarlet fever, measles, rubella, fourth disease, erythema infectiosum, typhus fever, diphtheria, Vincent's angina, mumps, whooping cough, erysipelas and cerebro-spinal meningitis.

Vaccination and serumization are considered at great length, including a section on "Opposition to Vaccination" in which Bernard Shaw is discussed in a particularly personal way.

THE TREATMENT OF VARICOSE VEINS of the Lower Extremities By Injections—By T. Henry Treves-Barber, M.D., B.Sc. Cloth. Pp. 120. Price $2.25 net. Wm. Wood and Company, 156 Fifth Avenue, New York City.

The purpose of this book is to state briefly the essentials of the modern ambulatory treatment of varicose veins and their complications. It claims to be based on several years of personal observation and experience with such cases.

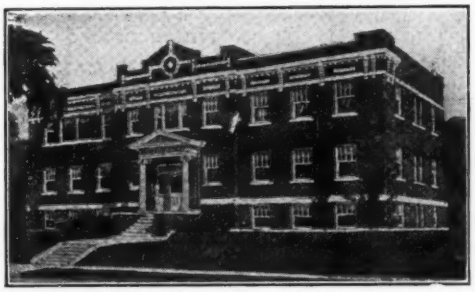
A little over a hundred pages, dealing with an up-to-date subject—a book that will interest a number of our physicians.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and especially prepared original articles by leading members of the medical profession throughout the world. Vol. I. Thirty-ninth Series, 1929. Cloth. Pp. 303. Illustrated. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. J. B. Lippincott Company, E. Washington Square, Philadelphia.

Among the titles are "Congenital and Developmental Aneurysms and Their Importance in Regard to the Occurrence of Sudden Intracranial (especially subarachnoid) Hemorrhage"; "Treatment of Penumonia," a most valuable article because it suggests the limits of medicine and the opportunity osteopathy has in such diseases; "Prostatic Involvement in the Very Aged" is another subject of interest. "What Professional Pharmacy Can Do for Medicine" and "Manners and Morals" are other subjects which will invite your attention.

ARTIFICIAL SUNLIGHT AND ITS THERAPEUTIC USES. By Francis Howard Humphris, M.D. (Brux.), F.R.C.P. (Edin.), M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.M. (Rot. Rublin), D.M.R. & E. (Constab), Fifth Edition. Cloth. Pp. 340, with 31 illustrations. Price $3.25. Oxford University Press, 35 W. 32nd St., New York, N. Y., 1929.

A book that must interest that large group of doctors who are venturing into this field of adjunctive treatment and who ventures there must be sure of himself. He can afford to take no chances, especially for his patients' sake and also his own. New facts and improvements with more scientific understanding is being developed every day in the employment of artificial light. There is so much danger fraught with careless and ignorant technic with this sort of apparatus treatment that one must familiarize himself with every bit of new light that comes from any authoritative source.



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NOTICE

In the "Changes of Address" column, January JOURNAL, appeared the name of Dr. Myrtle B. Laird as moving from 1218 Eighth Ave., Greeley, Colo., to Richmond, Calif. Since that time Dr. Laird has decided to remain in Greeley at her old address.

CHANGES OF ADDRESS

Bailey, E. Marvin, from 2407 Main St., to 1018 Isabella St., Houston, Texas.

Benjamin, Barnard Harold, from Mattapan, Mass., to 687 Boylston St., Boston, Mass.

Barnes, Edmund C., from Buffalo, N. Y., to 82 Main St., Silver Creek, N. Y.

Beeman E. E., from 500 Fifth Ave., to 7 West 44th St., New York, N. Y.

Beeman, R. H., from 500 Fifth Ave., to 7 West 44th St., New York, N. Y.

Berry A. E., from Box 112, to Floridan Hotel Bldg., 907 Florida Ave., Tampa, Fla.

Blair, Glenn D., from 5266 Dahlia Drive to 451 So. Cochran, Apt. 104, Los Angeles, Calif.

Brooker, G. E., from Kirksville, Mo., to 212 S. Clarendon Ave., Canton Ohio.

Brown, J. Francis, from Liberal, Kan., to 706 Oliver-Eakle Bldg., Amarillo, Texas.

Buller, William E., from 1104 Hamilton St., to 1101 Walnut St., Allentown, Pa.

Burns, Louisa, from South Pasadena, Calif., to 1723 Canyon Drive, Los Angeles, Calif.

Campbell, H. T., from Warren, Pa., to Bashline Rossman Osteopathic Hospital, Grove City, Pa.

Clarkson, Amos P., from New York, N. Y., to 509 Park Bldg., Worcester, Mass.

Davis, Ralph E., from 123 Wisconsin Ave. to 1230 Bankers Bldg., 84 East Wisconsin Ave., Milwaukee, Wis.

Davis, Warren B., from 310 Metropolitan Bldg., to 310 First Nat'l Bk. Bldg., Long Beach, Calif.

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Doneghy, A. I., from 1417 Chapline St., to 52-15th St., Wheeling, W. Va.
Edward, J. C., from Pawhuska, Okla., to 847 South Harvard, Tulsa, Okla.
Elton, Edwin J., from Wauwatosa, Wis., to 1230 Bankers Bldg., 84 East Wisconsin Ave., Milwaukee, Wis.
Emanuel, Obert J., from Ambler, Pa., to 301 West 108th St., New York, N. Y.
Farquharson, C. L., from Wichita, Kan., to Houston Osteopathic Clinic, Cor. Fannin and Isabella, Houston, Texas.
Forster, H. E., from 212 Poledor Bldg., to 513 Odd Fellows Bldg., South Bend, Ind.
Francis, T. Harris, from 45 N. Duke St., to 132 E. Chestnut St., Lancaster, Pa.
George, Lizabeth De Laittre, from 902 Heartwell Bldg., to 1212 Heartwell Bldg., Long Beach, Calif.
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Glenn, J. Orlin, from 30-36 Security Bank Bldg., to 223 Central Tower Bldg., Santa Monica, Calif.
Goblirsch, E. C., from Pierz, Minn., to First Nat'l Bank Bldg., Little Falls, Minn.
Helebrant, S. A., from Des Moines, Iowa, to Austin, Minn.
Heydenburk, Ray D., from Fordson, Mich., to 12722 Michigan Ave., East Dearborn, Mich.
Krohn, Ted R., from Kempt Kort, to 324-25-28 Hamilton Bldg., Wichita Falls, Texas.
Lane, Ira T., from Phoenix, Ariz., to 425-26 Damon Bldg., Honolulu, T. H.
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Miller, R. W., from Pasadena, Calif., to 172 N. Ka Brea Ave., Los Angeles, Calif.
Page, Leon E., from Tulsa, Okla., to 244-48 Werby Bldg., Kansas City, Mo.
Peterson, R. H., from Kemp Kort, to 324-25-28 Hamilton Bldg., Wichita Falls, Texas.
Phelps, Frances Josephine, from 8007 Ocean Lane to La Valencia Hotel, La Jolla, Calif.
Renicks, Nellie Stewart, from Stewart Sanitarium, to 650 Ave. B North West, Winter Haven, Fla.
Rosenblatt, Harry, from 5247 Walnut St., to 5016 Walnut St., Philadelphia, Pa.
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Snyder, J. F., from Findlay, Ohio, to 11 E. Front St., Monroe, Michigan.
Stahlman, Harry E., from Clarion, Pa., to Alonso Apartment No. 1, Brownsville, Texas.
Thompson, Emma Wing, from 4738-B University Way, to 4732½ University Way, Seattle, Wash.
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(Continued on page 34)

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See page 266

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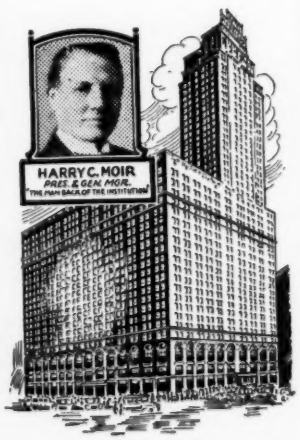

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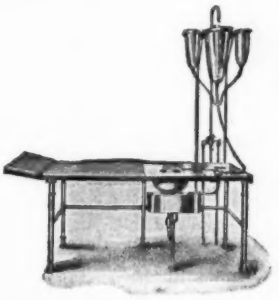

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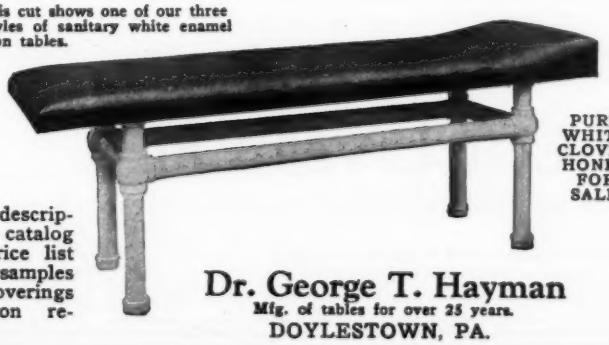

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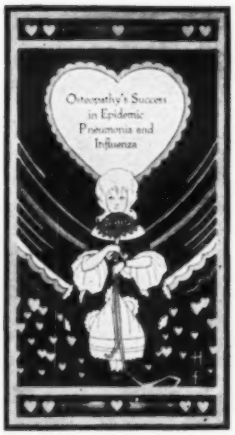

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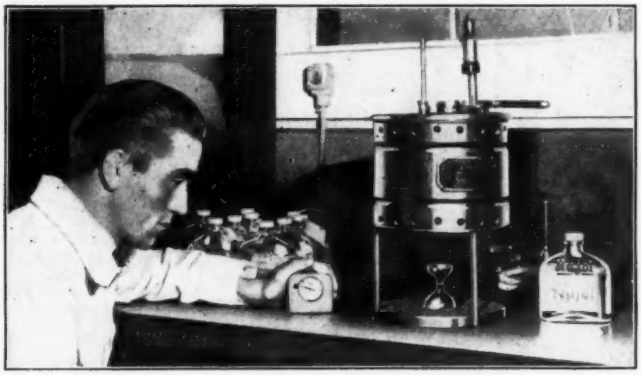

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